MBTA Old Colony Commuter Rail Service Restoration
1998 Passenger Survey

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The preparation of this document was supported by MBTA Contract X94PS04, the Federal Transit Administration through EOTC Contract 8169001/ X0008, and state and local matching funds.

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Directed by the Boston Metropolitan Planning Organization. The MPO is composed of state and regional agencies and authorities, and local governments.

Draft – January 2000

Table of Contents

1. INTRODUCTION 1-1

2. ORIGIN LOCATIONS AND ACTIVITIES 2-1

3. ACCESS TO THE TRAIN 3-1

4. TRIP PURPOSE AND ALTERNATE MEANS 4-1

5. USAGE RATES BY FARE TYPE 5-1

6. AUTOMOBILE AVAILABILITY DATA 6-1

7. SOCIOECONOMIC DATA 7-1

8. CUSTOMER SERVICE DATA AND REASONS FOR USING OLD COLONY 8-1

9. EGRESS FROM THE TRAIN 9-1

10. DESTINATION LOCATIONS AND ACTIVITIES 10-1

11. INNER TOWN/OUTER TOWN MATRIX 11-1

12. SUMMARY OF WRITTEN COMMENTS AND SUGGESTIONS 12-1

SURVEY FORM

1. Introduction

This report presents the final results of a survey of passengers on the Old Colony lines of the Massachusetts Bay Transportation Authority (MBTA) commuter rail system, conducted by the Central Transportation Planning Staff (CTPS) in September 1998. The Old Colony lines consist of two routes, the Middleborough/Lakeville Line and the Plymouth/Kingston Line, with common trackage between Braintree Station and South Station in Boston. Service on these lines was instituted by the MBTA in September 1997. Previous passenger service on the lines had ended in 1959.

The survey was one element of an ongoing project to monitor the impacts of Old Colony service implementation on its users and on other transportation facilities. The survey form (a copy of which appears at the end of this report) contained 24 questions covering objective travel characteristics such as origin, destination, and trip purpose, and subjective views of service quality. Space was also provided for written comments and suggestions. The form was similar to that of the survey conducted by CTPS in 1993 on all MBTA commuter rail lines then in operation. Some questions on the Old Colony survey were reworded to improve clarity, and some new questions were added to determine how Old Colony users had previously made their trips.

Survey distribution took place on board all weekday inbound trains on both Old Colony branches from start to finish of the service day. All survey distribution was done by CTPS personnel riding trains over the full lengths of their routes. An attempt was made to provide a survey form to every passenger on every train, although not all passengers accepted forms. Completed forms could be returned to the survey personnel on board the trains, deposited in collection boxes or at the information booth at South Station, or mailed in postage free. The number of surveys completed sufficiently to use (3,236) was equal to 49.4% of the total inbound ridership (6,544) found in control counts conducted at about the same time. This was slightly higher than the 45% return in the 1993 survey, partly because of improved distribution methods.

The results of the Old Colony survey were entered in a computerized database from which responses to selected combinations of questions can be extracted at a wide range of levels of aggregation. The tables contained in this report are intended to provide an overview of the data available from the survey findings. More specialized tables can be generated as needed.

The control totals for the survey were obtained by conducting boarding and alighting counts for every train at every Old Colony station on one weekday in September or October 1998. (Because of limited availability of personnel it was impossible to perform all of the counts on the same day, so the results are a composite.) During peak hours

most of the counts were done by checkers positioned at station platform entry and exit points. Most midday and evening counts were done by checkers riding trains over the full lengths of their routes and observing boardings and alightings at each station. Although the surveys were distributed only on inbound trains, outbound counts provided a check on the reasonableness of the inbound results. In cases where there were large discrepancies between all-day inbound boardings and outbound alightings for an individual station, recounts were done.

In the report, the raw survey results have been factored up to the control totals. Applying the ratio of the overall control count to overall survey responses would have resulted in an expansion factor of 2.02. To allow for differences in response rates, separate expansion factors were calculated for each train, for each boarding station. In cases where response rates were unusually low, results for two or more consecutive trains were averaged to avoid applying excessive weight to individual surveys. Initial results were further adjusted to control totals by train by alighting station. Over 98% of the surveys were given final expansion factors between 1.0 and 4.0. For the remainder, the largest expansion factor used was 8.0. In the tables generated from the database, all numerical values are rounded off to whole numbers. In some cases, this results in slight discrepancies between the totals shown and the values that would be obtained by totaling the individual rounded-off entries.

The formats of most of the standard reports produced from the Old Colony survey database differ somewhat from those of the reports generated from the 1993 survey database, but similar kinds of information can be obtained from both. The text in the following chapters includes many comparisons between the results of the two surveys.

2. Origin Locations and Activities

Information Contained

Each Origin Locations and Activities report consists of one table, showing the origin cities and towns of passengers in a selected group. This information is based on survey question 3b. Most city and town definitions in the database correspond with municipal boundaries, but Boston, Cambridge, Somerville, and Brookline are subdivided into neighborhoods. Locations outside Massachusetts are combined at state level only.

In the Origin Locations and Activities report, origins are arranged in descending order of volume with a maximum of 25 origins. If there are more than 25 origins in the group, those producing fewer boardings than the one in 25th place are combined as Other.

In addition to showing the number of riders and the percentage of the group total accounted for by each origin, the table includes a breakdown of passengers from each origin by activity prior to starting the trip, based on survey question 3a. The choices given on the survey were: At home; At school; At work; At a store; At the doctor or other personal business; At a work-related errand or meeting; At a restaurant, or social or recreational activity; and Other. The table includes the responses for all of these, although some of the table headings have been abbreviated.

Origin Locations

Survey question 3b provided space for respondents to write in the starting points of their trips, including street address or nearest intersection or landmark and city or town. Almost all of the respondents on both Old Colony branches completed at least the city or town portion of this question or included sufficient information in their responses to other questions to enable determination of their origin cities and towns. The majority also included some address information, but most specified streets only. In such cases, the level of precision with which it would be possible to map origins would vary with street lengths. Because of the large number of different origins, no attempt was made to create reports at a level of detail finer than city or town. Address responses were, however, included in the database in as much detail as was furnished, and they can be retrieved as needed.

Middleborough/Lakeville Line Overall

Excluding South Station, the Middleborough/Lakeville Line has eight stations. Three stations (Campello, Brockton, and Montello) are within the city of Brockton. Two stations (Middleborough/Lakeville and Holbrook/Randolph) are located on the borders of two towns. The net result is that the direct service area of the branch

includes a total of eight cities and towns. Two stations (Braintree and Quincy Center) are served by trains on both Old Colony branches. The Middleborough/Lakeville Line provides most of the service at Quincy Center, however, and the Plymouth/Kingston Line provides most of the service at Braintree.

The survey results for the Middleborough/Lakeville Line showed passengers with trips originating in a total of 47 cities and towns. The 1,533 survey responses were expanded to a total of 2,964 riders. As on older MBTA commuter rail lines, trip origins were most heavily concentrated in the cities and towns with stations or within a few miles of stations. The top 10 origin cities and towns accounted for 81% of outer trip ends, and the top 20 accounted for 93%.

The eight cities and towns served directly by the line accounted for 75% of the trip origins. This was within the range, but above the average, of on-line origins found on older South Side Lines in the 1993 survey,

Of the eight cities and towns served directly by the Middleborough/Lakeville Line, all except Braintree were among the top 10 trip originators. Brockton, which has the largest population of any of the direct-service communities, as well as being the only one with more than one station, was first, with 29% of origins (863).

Of the three top-10 trip originators without direct service, the most important was East Bridgewater, in seventh place, with 81 trips (2.7%). This town adjoins both Bridgewater and Brockton, and boardings were divided mostly between Bridgewater and Campello. (An even larger number of East Bridgewater riders used the Plymouth/Kingston Line.) Wareham, which adjoins Middleborough, was tenth overall in trip origins (63), with all passengers boarding at Middleborough/Lakeville station.

The only trip originator in the top 10 that does not adjoin a city or town with a station was New Bedford, which placed eighth with 69 trips. The total population of New Bedford exceeds that of any other city or town that originated trips on the Middleborough/Lakeville Line, including Brockton. The main highway route from New Bedford to Boston runs through Lakeville and Middleborough, but a side diversion of about five miles is required to reach the Middleborough/Lakeville station where most New Bedford passengers boarded.

Quincy placed second-lowest among direct service communities as a source of boardings on the Middleborough/Lakeville Line, in ninth place with 63. Braintree, the only direct-service town that was not among the top 10 trip originators, placed 15th, with 36 boardings, partly because most Old Colony service at Braintree is provided by Plymouth/Kingston trains. The two lines combined had 95 trip origins from Quincy and 84 trip from Braintree. If all of these passengers had used Middleborough/ Lakeville trains, Quincy would have been the seventh-largest trip originator on the line and Braintree would have been eighth, placing both of them ahead of East Bridgewater and New Bedford.

Rapid transit service to Boston from the same station complexes used by the Old Colony Lines has been provided by the Red Line at Quincy Center since 1971 and at Braintree since 1980. With much more frequent service and lower fares, the Red Line continues to serve the vast majority of users of these stations. Further competition for Quincy riders is provided by three other Red Line stations in that city.

Trip origins reported on the Middleborough/Lakeville Line did not include significant numbers of riders who would seem to be attracted more logically either to older MBTA commuter rail lines or to the Plymouth/Kingston Line. As discussed in chapter 3, about 13% of the riders had used older commuter rail lines prior to the re-opening of the Old Colony routes. Among the more distant ridership sources, a total of 36 trips originated in Cape Cod towns, all in Bourne, Falmouth, or Mashpee. (Other Cape Cod towns have more direct highway access to the Plymouth/Kingston Line.) Five passengers on the line had trip origins in Rhode Island, mostly at points that were not closer to any other commuter rail service.

Middleborough/Lakeville Line Individual Stations

Except for Middleborough/Lakeville, every station on the line drew a majority of its passengers from the same city or town where it is located. The same-community proportions ranged from 65% at Campello to 100% at Brockton, counting Holbrook/Randolph station as being in both of those towns. Randolph alone contributed 55% of the riders at Holbrook/Randolph, and Holbrook another 29%.

Middleborough and Lakeville combined produced only 43% of the trips at Middleborough/Lakeville Station with Middleborough providing 26% and Lakeville 17%. The 1993 survey results show that outer terminal stations with good highway access often draw riders from much greater distances than intermediate stations. For example, trips originating in the same city or town as the station accounted for only 52% of the boardings at Providence and 26% at Forge Park.

The 100% of Brockton Station origins originating within Brockton is unusual, but is consistent with the lack of off-street parking there at the time of the survey. The Campello and Montello stations, which are both also in Brockton, did have parking lots. Campello had the second-highest out-of-town trip origin rate on the line after Middleborough/Lakeville.

Plymouth/Kingston Line Overall

Excluding South Station, the Plymouth/Kingston Line serves nine stations. No city or town has more than one station on the line, and no station is located on a town border, so the number of direct-service communities is also nine. Two stations (Braintree and Quincy Center) are served by trains on both Old Colony branches. Most of the service at Quincy Center is provided by the Middleborough/Lakeville Line, however, and most of the service at Braintree is provided by the Plymouth/Kingston Line.

The survey results for the Plymouth/Kingston Line showed passengers with trips originating in a total of 40 cities and towns. The 1,703 survey responses were expanded to a total of 3,579 riders. As on older MBTA commuter rail lines, trip origins were most heavily concentrated in the cities and towns with stations and in nearby communities. The top 10 origin cities and towns accounted for 79% of outer trip ends, and the top 20 accounted for 96%.

The nine cities and towns served directly by the line accounted for 61% of the trip origins. This was close to the low end of the range of on-line origins found on older South Side lines in the 1993 survey, implying above-average drawing power for the Plymouth/Kingston Line.

Of the nine cities and towns served directly, six were among the top 10 trip originators on the line and three (Halifax, Braintree, and Quincy) were not. Plymouth, which has the third-largest population in the line's direct service area (after Quincy and Weymouth) had the largest share of trip origins, at 15.6% (555). This is especially noteworthy, as the station in Plymouth has service only during off-peak hours. Of the 555 trips originating in Plymouth, only 45 used Plymouth Station. Most of the other Plymouth trips were made via Kingston Station.

Of the four top-10 trip originators without direct service, the most important was Pembroke, in fifth place, with 251 trips. This town adjoins Kingston, Halifax and Hanson, with most boardings taking place at the stations in the latter two. Rockland was nearly tied with Pembroke as a trip source, with 248. Rockland adjoins Whitman, Abington, and Weymouth, with most boardings taking place at the stations in the latter two. Abington Station is less than one half mile from the border of Rockland, and one third of the Rockland residents boarding at Abington reported access times below the average for Abington residents boarding there.

Duxbury was the ninth-largest source of riders on the line, with 199 trips. Duxbury directly adjoins Kingston, where a little over half these trips boarded. Most of the rest boarded at Halifax or Hanson.

Hanover, the tenth-largest trip source with 144, adjoins Hanson, but use of the station in that town requires substantial doubling back for Hanover residents. Boardings from Hanover were scattered among several stations, but 60% of them took place at Abington.

Halifax, which placed eleventh with 129 trips, has the lowest total population of any of the direct-service towns on the line. (Census estimates for 1998 show that Pembroke, Rockland, and Duxbury, the three largest off-line trip originators, each had more than twice as many residents as Halifax.) As discussed above, Old Colony boardings from Braintree and Quincy are divided between the two branches, and the largest shares of mass transit trips from these points are captured by the Red Line. Even if all Old Colony passengers from Braintree and Quincy had used Plymouth/Kingston trains,

Quincy would have ranked only thirteenth and Braintree fourteenth as ridership sources on this branch.

Trip origins reported on the Plymouth/Kingston Line did not include significant numbers of riders who would seem to be attracted more logically either to older MBTA commuter rail lines or to the Middleborough/Lakeville Line. Only three towns located between the two Old Colony branches do not have stations on either one. These are East Bridgewater, Plympton, and Carver. As would be expected, trips originating in these towns were divided between the two branches. The Plymouth/Kingston Line got the larger share from each of them, but none were among the top 10 ridership sources on that line. (East Bridgewater ranked 12th on the Plymouth/Kingston Line compared with seventh on the Middleborough/Lakeville Line, despite sending fewer total riders to the latter.)

As discussed in chapter 4, under 1% of the riders had used other commuter rail lines prior to the re-opening of the Old Colony routes. Among the more distant ridership sources, for the Plymouth/Kingston Line, a total of 134 trips originated in Cape Cod towns. This was nearly four times the number of Cape trips found on the Middleborough/Lakeville Line, which has less direct access from many areas on the Cape. Sandwich, Barnstable, Bourne, Yarmouth, and Dennis together accounted for 90% of the Cape Cod riders on this branch, but small numbers were reported from as far as Eastham. The combined total number of Cape trips was just below the individual total from tenth-place Hanover.

Excluding Weymouth, towns that would be served directly by the Greenbush Branch of the Old Colony contributed few riders to the Plymouth/Kingston Line. There were 16 from Hingham, 14 from Scituate, and none from Cohasset. (No riders from any of these towns used the Middleborough/Lakeville Line.) The Greenbush Branch would also be expected to draw some riders from Marshfield and Norwell, which contributed 64 and 58 riders, respectively, to the Plymouth/Kingston Line.

Plymouth/Kingston Line Individual Stations

On the Plymouth/Kingston Line only four stations drew a majority of their riders from origins in the same city or town as the station. These were Plymouth (75%), Whitman (62%), Quincy Center (57%) and South Weymouth (51%). Of these stations, Plymouth and Quincy each had fewer than 60 boardings. This was in sharp contrast with the pattern on the Middleborough/Lakeville Line, where only the outer terminal station had a same-town origin rate below 65%.

At the five other stations, same-town origin rates ranged from only 12% at Kingston to 46% at Braintree. The low rate at Kingston was a result of several factors, including the station being a regional park-and-ride facility with good access from a major highway. (No other station on the line is as close to a limited-access highway.) It is also the outermost station having peak-period service. The station is near the south side of the town, requiring most Kingston residents to travel in the opposite direction from Boston

to reach it. Consequently, 46% of the trips originating in the town were made by boarding at other stations. (In the 1993 survey, South Attleboro Station, with somewhat similar characteristics, drew only 9% of its riders from its home city.)

Same-town origins, while not in the majority, were the largest individual ridership sources at Braintree (46%) and Hanson (41%). At Abington, same-town boardings were only slightly ahead of boardings from adjoining Rockland (35% versus 34%). At Halifax same-town boardings were tied for first place with boardings from the adjoining town of Pembroke (25% each). The Abington and Halifax stations are both so close to town lines that many residents of the adjoining towns have shorter access times than some residents of the station towns.

Origin Activities

On both Old Colony branches, most riders (93.4% on the Middleborough/Lakeville Line and 96.0% on the Plymouth/Kingston Line) indicated that their inbound trips began at home. Among individual stations on the Middleborough/Lakeville Line, the lowest rates of home-originated trips occurred at Bridgewater and Brockton (both 87%) and the highest at Montello and Braintree (99% and 100%). For the branch as a whole, the largest number of trips not starting from home (54 trips or 1.9%) began at a school. Most of these trips (51) began in Bridgewater, where the state college adjoins the station. Of the Bridgewater school riders, 60% were going home and most of the rest were going to work. Almost half of the school trips from Bridgewater (24) were interzone trips alighting before South Station. No other individual city or town accounted for more than three trips starting at a school.

Trips beginning at work were next in importance on the Middleborough/Lakeville Line (52 trips or 1.8%). Slightly over half of these riders (28) were going home; the rest had a variety of trip purposes. Bridgewater was the largest source of work-to-home trips, with 13. No other city or town generated more than five such trips. Trips originating anywhere other than home, school, or work accounted for a total of 91 trips (2.9%).

On the Plymouth/Kingston Line, the only station at which home-based trips accounted for under 94% of boardings was Plymouth, (57%) where there was no peak-period service. Boardings at Braintree and Quincy were 100% home-based. On this line the only category of trips not originating at home that accounted for over 1% of riders was trips from work (1.2%, or 43 riders). More than half of these (25) were work-to-home trips, with no city or town originating as many as ten. (The train that would have been convenient for the largest number of work-to-home trips had a total of only 16 riders for all purposes, and a low survey response rate required large expansion factors at some stations. Therefore, the distribution of work-to-home trips by origin is imprecise.) At Plymouth Station, the largest category of trips after home based was Social/ Recreational, with 19% , but because of the small total number of boardings this was only 11 trips. The majority of these (8) were Senior Citizens making non-repetitive trips.

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Middleborough/Lakeville** **All Stations**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Brockton	863	29.2%	94.7%	0.3%	1.8%	1.4%	0.5%		0.3%	0.9%
Bridgewater	516	17.5%	84.3%	9.9%	2.5%		1.4%		1.0%	0.9%
Randolph	274	9.3%	97.0%		0.8%	1.3%				0.9%
Middleborough	200	6.8%	92.3%		1.9%	0.7%	1.9%		1.4%	1.7%
Holbrook	146	4.9%	95.1%		3.3%					1.6%
Lakeville	118	4.0%	94.7%		2.8%				2.5%	
East Bridgewater	81	2.7%	98.0%			2.0%				
New Bedford	69	2.3%	89.9%		7.9%				2.2%	
Quincy	63	2.1%	84.6%		6.3%	9.1%				
Wareham	63	2.1%	97.6%							2.4%
Taunton	62	2.1%	92.9%						2.5%	4.5%
West Bridgewater	47	1.6%	100.0%							
Raynham	41	1.4%	100.0%							
Easton	37	1.3%	92.5%	7.5%						
Braintree	36	1.2%	100.0%							
Avon	28	0.9%	100.0%							
Marion	27	0.9%	100.0%							
Carver	25	0.8%	100.0%							
Weymouth	24	0.8%	100.0%							
Rochester	23	0.8%	91.3%							8.7%
Freetown	22	0.7%	100.0%							
Bourne	18	0.6%	100.0%							
Mattapoisett	17	0.6%	100.0%							
Acushnet	16	0.5%	100.0%							
Abington	13	0.4%	100.0%							
Other	126	4.3%	97.6%							2.4%
TOTAL	2,953	100.0%	93.4%	1.9%	1.8%	0.8%	0.5%		0.6%	1.0%
Unknown	11									

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Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Middleborough/Lakeville** **Middleborough/Lakeville Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Middleborough	181	26.3%	91.5%		2.1%	0.8%	2.1%		1.6%	1.9%
Lakeville	118	17.1%	94.7%		2.8%				2.5%	
New Bedford	65	9.4%	89.3%		8.4%				2.4%	
Wareham	63	9.1%	97.6%							2.4%
Taunton	35	5.0%	91.9%							8.1%
Marion	27	3.9%	100.0%							
Carver	25	3.6%	100.0%							
Rochester	23	3.3%	91.3%							8.7%
Freetown	22	3.2%	100.0%							
Bourne	18	2.6%	100.0%							
Mattapoisett	17	2.5%	100.0%							
Acushnet	16	2.3%	100.0%							
Falmouth	13	1.9%	100.0%							
Dartmouth	12	1.7%	100.0%							
Fall River	9	1.4%	83.6%							16.4%
Fairhaven	7	1.0%	100.0%							
Plymouth	6	0.9%	100.0%							
Mashpee	5	0.7%	66.1%							33.9%
Raynham	5	0.8%	100.0%							
Berkley	4	0.6%	100.0%							
Westport	4	0.6%	100.0%							
Plympton	3	0.4%	100.0%							
Somerset	3	0.4%	100.0%							
Rhode Island	3	0.4%	100.0%							
Halifax	1	0.2%	100.0%							
Other	5	0.8%	100.0%							
TOTAL	690	100.0%	94.5%		1.8%	0.2%	0.5%		1.1%	1.9%
Unknown	6									

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Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Middleborough/Lakeville** **Bridgewater Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Bridgewater	486	77.9%	83.7%	10.5%	2.7%		1.5%		1.1%	0.6%
East Bridgewater	35	5.6%	100.0%							
Raynham	34	5.4%	100.0%							
Taunton	22	3.6%	92.9%						7.1%	
Middleborough	19	3.0%	100.0%							
Halifax	7	1.1%	100.0%							
Berkley	4	0.6%	100.0%							
Westport	4	0.6%	100.0%							
Somerset	3	0.5%	100.0%							
New Bedford	2	0.3%	100.0%							
West Bridgewater	2	0.3%	100.0%							
Rhode Island	2	0.3%	100.0%							
Brockton	2	0.3%	100.0%							
Dartmouth	2	0.3%	100.0%							
Fall River	2	0.3%	100.0%							
Easton	1	0.2%		100.0%						
TOTAL	625	100.0%	86.8%	8.4%	2.1%		1.1%		1.1%	0.5%
Unknown	0									

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11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Middleborough/Lakeville** **Campello Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Brockton	271	64.9%	98.0%		1.1%	0.9%				
West Bridgewater	45	10.9%	100.0%							
East Bridgewater	44	10.6%	96.3%			3.7%				
Bridgewater	28	6.6%	94.1%							5.9%
Easton	21	5.1%	92.4%	7.6%						
Taunton	3	0.8%	100.0%							
Dighton	3	0.7%	100.0%							
Raynham	2	0.4%	100.0%							
TOTAL	418	100.0%	97.6%	0.4%	0.7%	1.0%				0.4%
Unknown	0									

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Middleborough/Lakeville** **Brockton Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Brockton	249	100.0%	86.7%	1.1%	5.1%	3.9%	1.1%			2.1%
TOTAL	249	100.0%	86.7%	1.1%	5.1%	3.9%	1.1%			2.1%

Unknown 0

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Middleborough/Lakeville** **Montello Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Brockton	321	90.9%	98.6%				0.6%			0.8%
Easton	10	2.7%	100.0%							
Abington	7	2.0%	100.0%							
Avon	4	1.2%	100.0%							
Whitman	4	1.2%	100.0%							
New Bedford	3	0.7%	100.0%							
Bridgewater	2	0.5%	100.0%							
East Bridgewater	2	0.5%	100.0%							
Taunton	1	0.4%	100.0%							
TOTAL	353	100.0%	98.7%				0.6%			0.7%
Unknown	2									

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11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Middleborough/Lakeville** **Holbrook/Randolph Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Randolph	274	54.8%	97.0%		0.8%	1.3%				0.9%
Holbrook	146	29.1%	95.1%		3.3%					1.6%
Avon	23	4.7%	100.0%							
Brockton	20	3.9%	84.8%						15.2%	
Braintree	13	2.6%	100.0%							
Stoughton	8	1.7%	100.0%							
Abington	6	1.2%	100.0%							
Canton	4	0.7%	100.0%							
Easton	4	0.7%	100.0%							
Fairhaven	3	0.5%	100.0%							
TOTAL	501	100.0%	96.3%		1.4%	0.7%			0.6%	1.0%

Unknown 2

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Middleborough/Lakeville** **Braintree Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Braintree	16	66.7%	100.0%							
Hanover	4	16.7%	100.0%							
Weymouth	4	16.7%	100.0%							
TOTAL	24	100.0%	100.0%							
Unknown	0									

CTPS
11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Middleborough/Lakeville** **Quincy Center Station**

Expanded Results

LOCATIONS			ACTIVITIES						
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Quincy	63	67.4%	84.6%		6.3%	9.1%				
Weymouth	20	20.7%	100.0%							
Braintree	7	7.4%	100.0%							
Marshfield	4	4.4%	100.0%							
TOTAL	94	100.0%	89.6%		4.3%	6.1%				
Unknown	0									

CTPS
11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Plymouth/Kingston** **All Stations**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Plymouth	555	15.6%	89.8%		2.8%	0.2%	0.6%	0.4%	2.7%	3.4%
Weymouth	357	10.0%	96.5%			2.6%				0.9%
Abington	320	9.0%	99.2%		0.8%					
Whitman	291	8.2%	98.7%						0.8%	0.5%
Pembroke	251	7.0%	99.2%			0.8%				
Rockland	248	7.0%	93.6%	1.1%	3.2%				1.0%	1.0%
Hanson	231	6.5%	95.7%		2.8%	0.9%				0.6%
Kingston	205	5.8%	92.5%	1.3%	2.6%			1.5%	0.6%	1.6%
Duxbury	199	5.6%	99.0%							1.0%
Hanover	144	4.0%	98.1%							1.9%
Halifax	129	3.6%	100.0%							
East Bridgewater	106	3.0%	97.7%						2.3%	
Carver	71	2.0%	100.0%							
Marshfield	64	1.8%	100.0%							
Norwell	58	1.6%	91.9%			8.1%				
Braintree	48	1.4%	100.0%							
Sandwich	35	1.0%	94.5%							5.5%
Plympton	32	0.9%	100.0%							
Quincy	31	0.9%	90.0%		10.0%					
Barnstable	29	0.8%	100.0%							
Bourne	23	0.7%	100.0%							
Yarmouth	22	0.6%	73.7%						17.6%	8.8%
Brockton	21	0.6%	100.0%							
Hingham	16	0.5%	100.0%							
Scituate	14	0.4%	100.0%							
Other	60	1.7%	96.7%		1.7%	1.7%				
TOTAL	3,562	100.0%	96.0%	0.2%	1.2%	0.6%	0.1%	0.1%	0.8%	1.1%
Unknown	17									

CTPS
11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Plymouth/Kingston** **Plymouth Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Plymouth	45	75.3%	43.2%		17.3%	2.2%		5.2%	24.9%	7.2%
Kingston	9	14.6%	100.0%							
Marshfield	3	5.0%	100.0%							
Yarmouth	3	5.0%	100.0%							
TOTAL	59	100.0%	57.2%		13.0%	1.7%		3.9%	18.8%	5.4%

Unknown 4

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Plymouth/Kingston** **Kingston/Route 3 Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Plymouth	506	56.0%	93.8%		1.6%		0.7%		0.8%	3.1%
Duxbury	111	12.3%	98.2%							1.8%
Kingston	108	12.0%	88.9%	2.4%	4.9%			2.8%	1.1%	
Sandwich	35	3.9%	94.5%							5.5%
Carver	28	3.1%	100.0%							
Barnstable	23	2.6%	100.0%							
Bourne	23	2.6%	100.0%							
Yarmouth	19	2.1%	69.5%						20.3%	10.2%
Marshfield	15	1.7%	100.0%							
Dennis	11	1.3%	100.0%							
Pembroke	5	0.5%	100.0%							
Harwich	4	0.4%	100.0%							
Mashpee	3	0.3%	100.0%							
Plympton	3	0.4%	100.0%							
Halifax	2	0.2%	100.0%							
Falmouth	2	0.2%	100.0%							
New Bedford	1	0.1%			100.0%					
Wareham	1	0.1%	100.0%							
Brewster	1	0.1%	100.0%							
Eastham	1	0.1%	100.0%							
TOTAL	903	100.0%	94.0%	0.3%	1.6%		0.4%	0.3%	1.0%	2.4%

Unknown 3

CTPS
11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Plymouth/Kingston** **Halifax Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Halifax	100	24.8%	100.0%							
Pembroke	100	24.9%	100.0%							
Kingston	85	21.2%	96.0%							4.0%
Duxbury	47	11.8%	100.0%							
Carver	36	9.0%	100.0%							
Plympton	29	7.2%	100.0%							
Hanson	2	0.5%	100.0%							
Marshfield	2	0.4%	100.0%							
Middleborough	1	0.2%				100.0%				
TOTAL	401	100.0%	98.9%			0.2%				0.8%

Unknown 3

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Plymouth/Kingston** **Hanson Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Hanson	171	40.6%	94.2%		3.8%	1.2%				0.8%
Pembroke	131	31.1%	98.4%			1.6%				
East Bridgewater	32	7.7%	100.0%							
Duxbury	30	7.2%	100.0%							
Halifax	27	6.5%	100.0%							
Hanover	8	1.9%	100.0%							
Carver	7	1.7%	100.0%							
Kingston	4	0.9%	100.0%							
Marshfield	4	1.0%	100.0%							
Plymouth	4	0.9%	100.0%							
Falmouth	2	0.5%	100.0%							
TOTAL	421	100.0%	97.1%		1.5%	1.0%				0.3%

Unknown 0

CTPS
11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Plymouth/Kingston** **Whitman Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Whitman	262	61.7%	98.5%						0.9%	0.6%
East Bridgewater	68	16.0%	96.4%						3.6%	
Hanson	47	11.1%	100.0%							
Hanover	13	3.1%	100.0%							
Pembroke	11	2.5%	100.0%							
Norwell	8	2.0%	44.9%			55.1%				
Marshfield	5	1.2%	100.0%							
Brockton	5	1.2%	100.0%							
Bridgewater	3	0.8%	100.0%							
Rockland	2	0.5%	100.0%							
TOTAL	425	100.0%	97.4%			1.1%			1.1%	0.4%

Unknown 2

CTPS
11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Plymouth/Kingston** **Abington Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Abington	188	34.6%	100.0%							
Rockland	186	34.2%	95.8%	1.5%					1.3%	1.3%
Hanover	87	16.1%	96.9%							3.1%
Whitman	22	4.1%	100.0%							
Brockton	16	3.0%	100.0%							
Marshfield	12	2.2%	100.0%							
Norwell	12	2.3%	100.0%							
Hanson	7	1.4%	100.0%							
Scituate	5	0.9%	100.0%							
Bridgewater	3	0.5%	100.0%							
Pembroke	2	0.4%	100.0%							
East Bridgewater	2	0.5%	100.0%							
TOTAL	543	100.0%	98.1%	0.5%					0.5%	1.0%
Unknown	0									

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Plymouth/Kingston** **South Weymouth Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Weymouth	343	51.3%	96.4%			2.7%				0.9%
Abington	133	19.8%	98.0%		2.0%					
Rockland	60	8.9%	86.7%		13.3%					
Norwell	32	4.8%	100.0%							
Hanover	25	3.7%	100.0%							
Marshfield	23	3.5%	100.0%							
Hingham	11	1.7%	100.0%							
Whitman	7	1.0%	100.0%							
Barnstable	6	0.9%	100.0%							
Duxbury	6	0.9%	100.0%							
Hanson	3	0.5%	100.0%							
Hull	3	0.4%	100.0%							
Pembroke	3	0.4%	100.0%							
Quincy	3	0.5%			100.0%					
Scituate	3	0.4%	100.0%							
Taunton	3	0.5%	100.0%							
Braintree	3	0.5%	100.0%							
East Bridgewater	3	0.5%	100.0%							
TOTAL	670	100.0%	96.1%		2.1%	1.4%				0.5%
Unknown	3									

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Plymouth/Kingston** **Braintree Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Braintree	41	45.8%	100.0%							
Hanover	10	11.4%	100.0%							
Randolph	10	11.4%	100.0%							
Holbrook	7	7.8%	100.0%							
Scituate	6	6.7%	100.0%							
Hingham	5	5.7%	100.0%							
Norwell	5	5.7%	100.0%							
Duxbury	5	5.7%	100.0%							
TOTAL	90	100.0%	100.0%							
Unknown	0									

Old Colony Commuter Rail

1998 Passenger Survey

Origin Locations and Activities

Line: **Plymouth/Kingston** **Quincy Center Station**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Quincy	28	57.1%	100.0%							
Weymouth	14	28.6%	100.0%							
Milton	4	7.1%	100.0%							
Braintree	4	7.1%	100.0%							
TOTAL	49	100.0%	100.0%							
Unknown	0									

3. Access to the Train

Information Contained

Each Access to the Train report consists of three tables on one page. The first table, Access Mode to the Train shows for the selected group of passengers the number and percent accessing their boarding stations by each of eight modes listed in survey question 4a. These were: Walked directly; Was dropped off from a private car; Drove and parked at or near station; Rode as passenger in car parked at or near station; Transferred from a bus/shuttle; Rode bicycle; Taxicab; and Other. The table includes the responses for all of these, although the table headings have been abbreviated. (On the fourth line, PNR stands for park-and-ride.) The second part of the first table shows access times of passengers reporting each mode of access, from question 4b. The responses are combined into various ranges of minutes, with the percent of riders with access times in each range shown, as well as the mean value of all responses.

The second table in the report, Bus/Shuttle Transfers, separates passengers that transferred from buses or shuttles by MBTA bus route, private-carrier or Regional Transit Authority, or other provider. Question 4a provided space for bus/shuttle users to specify which ones they used. At most boarding stations, the number of possible bus/shuttle connections was so limited that they could be identified from other information on the survey forms even when not specified by the respondents. Because of the relatively low level of bus/shuttle access reported, the analysis of the results of the second table is included below in the discussion of the access mode responses in the first table rather than in a separate section.

In the Bus/Shuttle Transfers tables, all route numbers are those of MBTA bus routes in effect in 1998. These are identified more fully in the discussion of the table results. "BAT" refers to any Brockton Area Transit route. "PAL" refers to the Plymouth Area Link bus system routes serving the Kingston and Plymouth stations. "PLB" refers to the Plymouth & Brockton Street Railway Company. (During the summer and early fall of 1998 PLB ran an experimental route from Woods Hole and Sagamore Circle to Kingston Station.)

The third table in the report, Wait Time at Boarding Station, shows the waiting times reported by passengers in question 4c. The responses are combined into various ranges of minutes, with the number and percent of riders with wait times in each range shown, as well as cumulative percentages for times in or below each range and the mean value of all responses.

Mode of Access

Park-and-Ride

On both Old Colony branches, the most common mode of access to boarding stations by large margins was park-and-ride. Including both drivers and passengers, this accounted for 69.5% of boardings on the Middleborough/Lakeville Line and for 80.3% on the Plymouth/Kingston Line. Park-and-ride passengers accounted for only 2.3% on the former line and 2.6% on the latter, implying average auto occupancy rates of 1.03 on both branches. This figure may be slightly low if some passengers in park-and-ride cars incorrectly checked "Drove and parked" as the mode of access. The 1993 survey did not separate park-and-ride drivers from passengers, but direct observations in 1994 at Dedham Corporate Center, where access is almost all by park-and ride, also showed average occupancy of 1.03 in cars arriving to park.

The 1993 survey showed line-by-line park-and-ride access rates ranging from 44% to 72%. The comparatively high rates on the Old Colony lines are a reflection of most of the stations on those lines having been built at new sites with large parking lots. The majority of stations on the older commuter rail lines are in downtown areas with parking constraints.

Among individual stations on the Middleborough/Lakeville Line, park-and-ride access rates ranged from a low of 34.7% at Brockton Station (which had no dedicated commuter rail parking at the time) to a high of 80.2% at Middleborough/Lakeville, which had the largest parking lot. The only station other than Brockton with a park-and-ride access rate under 60% was Quincy Center, at 39.8%.

Park-and-ride rates at individual stations on the Plymouth/Kingston Line ranged from a low of 34.1% at Plymouth Station to a high of 87.7% at South Weymouth. The low rate at Plymouth was partly a reflection of the high proportion of riders boarding there on the return halves of round trips; only 57% of the riders boarding at Plymouth were coming from their homes. The next-lowest park-and-ride rates on the line were 54.5% at Braintree and 59.2% at Quincy Center. All other stations on the line had rates above 70%, and Kingston, Halifax, and Hanson all had rates above 80%.

Drop-Off

On the Plymouth/Kingston Line, drop-offs were the second-largest access group at 12.0%. On the Middleborough/Lakeville Line, drop-offs were slightly higher than this at 13.6%, but walk-ins were ahead, with 13.7%. On the 1993 survey lines, drop-off rates ranged from 9% to 19%, with only one line having a rate above 16%, so Old Colony drop-offs were consistent with this.

Braintree and Plymouth had the highest passenger drop-off rates on the Plymouth/Kingston Line, at 32.2% and 30.8%. Excluding Quincy Center, which had no drop-offs for trains on this branch, drop-off rates at the other stations on the branch ranged from

7.3% at South Weymouth to 14.6% at Hanson. Kingston Station, which had the largest total number of boardings (907) also had the largest number of drop-offs (121).

On the Middleborough/Lakeville Line, drop-off rates ranged from a low of 6.6% at Quincy Center to a high of 21.4% at Brockton, with all others being between 10% and 17%. The high drop-off rate at Brockton was consistent with the parking shortage and consequent low park-and-ride rate there.

Walk-Ins

Walk-ins were the second-largest access mode group on the Middleborough/Lakeville Line, at 13.7%, but the third-largest on the Plymouth/Kingston Line, at 6.5%. Walk-in rates varied widely among lines on the 1993 survey lines, from 12% to 41%, but exceeded 20% on all but the line with the highest park-and-ride rate. The variation among lines reflected differences in proximity of stations to residential areas as well as constraints on station parking. Likewise, the relatively low Old Colony walk-in rates reflect the lower density of development in many of the towns served, which limits the walk-in potential of stations.

Walk-in rates on the Middleborough/Lakeville Line ranged from a low of 1.4% at Middleborough/Lakeville Station to a high of 42.0% at Quincy Center. Brockton Station also had a very high walk-in rate, at 34.3%. The rates at other stations on the branch ranged from 9.8% to 21.6%, with only Montello having a rate above 17%. Bridgewater had the largest absolute number of walk-ins at 99, followed by Brockton at 85 and Montello at 77. All three of these stations are at or near locations of Old Colony stations prior to the discontinuance of service in 1959.

In contrast, walk-in rates on the Plymouth/Kingston Line ranged from a low of 0.9% at Kingston Station to a high of 29.2% at Plymouth. All others except Quincy Center (22.4%) had walk-in rates ranging from 2.5% to 15.8%. Whitman had the largest absolute number of walk-ins at 67, followed by Abington at 64. Both of these stations are at or near locations of Old Colony stations prior to the discontinuance of service in 1959.

The walk-in results at stations on both branches confirm that provision of large parking lots was a more successful strategy for attracting large numbers of riders than was siting stations within walking distance of trip origins. This was to be expected, as Boston trip generation densities in the areas served by the Old Colony lines limit the walk-in potential of any possible station site.

Other Access Modes

All other access modes combined were used in only 1.1% of all trips on the Plymouth/Kingston Line and in 3.3% on the Middleborough/Lakeville Line. On both branches, buses and shuttle vans provided the largest shares of other access modes, although the absolute numbers were relatively small. Most Old Colony stations had no feeder bus

connections at the time of the survey (and still do not). Much of the feeder bus service that was available consisted of pre-existing routes, on which little or no attempt had been made to coordinate arrival and departure times with train schedules.

On the Middleborough/Lakeville Line, 1.6% of riders (47) arrived by fixed-route buses but none by shuttle vans. The largest group of bus users (19) transferred from Brockton Area Transit (BAT) buses at Brockton Station. Another eight passengers transferred to trains from BAT buses at Montello and two more at Campello. BAT routes connect most Brockton neighborhoods with the city center, but most of the survey responses did not specify which BAT route was used. At the time of the survey, passengers from most BAT routes would have had to walk several blocks to the railroad station from the nearest bus stop. The city center bus terminal has since been relocated closer to the railroad station, so the number of bus access trips has probably increased.

After Brockton Station, Quincy Center had the next largest number of bus access trips, with seven transfers from MBTA bus Route 220 (Quincy Center Station - Hingham) and four from Route 225 (Quincy Center Station - Weymouth Landing). Both routes have provided feeder service to the Red Line at Quincy Center since it opened in 1971.

Another seven passengers transferred from MBTA bus Route 238 at Holbrook/ Randolph Station. Route 238, which had formerly run from Quincy Center Station to Crawford Square in Randolph, had its outer terminal extended to the Holbrook/ Randolph Station in conjunction with the opening of the commuter rail line.

No bus connections were or are provided at Middleborough/Lakeville or Bridgewater. Connections were and are possible at Braintree, but no passengers reported transferring from buses to inbound trains on either Old Colony branch there.

On the Plymouth/Kingston Line, 0.5% of riders (19) arrived by fixed-route buses but none by shuttle vans. The only stations at which there were any bus access trips were Plymouth, Kingston, and Quincy Center. Of these, Quincy Center had the largest number (11) all from MBTA routes 215 (Quincy Center Station - Ashmont Station) and 225. Route 215, like Route 225, has provided feeder service to the Red Line at Quincy Center since it opened in 1971.

The Plymouth and Kingston stations were served by two routes of the Plymouth Area Link (PAL) local bus system, connecting from points in the southern edge of Kingston and the northern sections of Plymouth. These routes were started in November 1997 by the Greater Attleboro Taunton Regional Transit Authority (GATRA). Providing a connection with the commuter rail service was only one of the intended purposes of the PAL routes, and the bus and train schedules were not well coordinated. The survey results showed two passengers transferring from these buses at Plymouth and five at Kingston. During the Summer and early Fall of 1998 there was also an experimental bus route to Kingston Station from Woods Hole and Sagamore. As with the PAL routes, the bus and train schedules were not well coordinated. The survey showed two

passengers transferring from the Woods Hole route, which was subsequently discontinued.

Bicycle access was used in 29 trips on the Middleborough/Lakeville Line and in 15 on the Plymouth/Kingston Line. On the Middleborough/Lakeville Line, almost all of the bicycle access passengers boarded at Middleborough/Lakeville, Bridgewater, or Holbrook/Randolph, with nearly half going to Holbrook/Randolph alone. On the Plymouth/Kingston Line, the greatest numbers of bicycle access trips went to Whitman (6) and Halifax (4). Although the bicycle access totals for both branches were fairly small, in both percentage and absolute terms they exceeded the levels of bicycle access found on most lines in the 1993 survey.

Taxicabs were the means of access for 17 passengers on the Middleborough/Lakeville Line. Bridgewater and Holbrook/Randolph were tied for the highest number of taxi trips, at five each. The Plymouth/Kingston Line had only three taxi users, all boarding at Plymouth or Kingston. Most of the taxi users on both branches had driver's licenses, but did not have autos available on the survey day. It is likely that the frequent rail users among them would have used other means of access on other days. In the 1993 survey, the number of taxi access trips by line ranged from zero to 30.

Access Times

Average reported access times were very similar on both Old Colony branches, at 10.3 minutes on the Middleborough/Lakeville Line and 10.7 minutes on the Plymouth/ Kingston Line. These results were within the range found in the 1993 survey. Average access times on both branches were heavily weighted toward those of park-and-ride passengers, since they made up by far the largest single access mode group on each branch. Only 10.3% of park-and-ride access trips on the Middleborough/Lakeville Line and only 7.6% on the Plymouth/Kingston Line showed access times in excess of 20 minutes. Under 3% of the park-and-ride access trips on each branch took longer than 30 minutes, and none took longer than 60 minutes. On the Plymouth/Kingston Line, all park-and-ride access trips of over 35 minutes originated in towns on Cape Cod.

Among passengers accessing boarding stations by walking, only 3.9% on the Plymouth/Kingston Line (9 riders) and only 7.9% on the Middleborough/Lakeville Line (32 riders) reported access times of over 20 minutes. At typical walking speeds, this implies that very few passengers walked more than one mile to reach a boarding station. Lines surveyed in 1993 showed similar patterns of walk-in access times.

Wait Times at Boarding Stations

Because of relatively long headways, passengers on MBTA commuter rail lines typically plan to arrive at boarding stations to take specific trains rather than arriving without regard to the schedule and waiting for the next train. On the Old Colony lines, intervals between inbound trains at the time of the survey mostly exceeded 30 minutes. Nevertheless, 90.6% of passengers on the Middleborough/Lakeville Line and 89.4% of

those on the Plymouth/Kingston Line reported waiting times of 10 minutes or less at their boarding stations. This was similar to the results of the 1993 survey, confirmed by direct observations at several stations.

Passengers reporting waiting times longer than 20 minutes were typically either infrequent riders who may have been uncertain of schedules, or people who would have had limited control over their station arrival times. The latter group included passengers transferring from buses that did not have schedules coordinated with those of the trains and passengers dropped off by drivers with other time constraints.

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Middleborough/Lakeville** **All Stations**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	405	13.7%
Drop off	400	13.6%
Park-and-ride	1,983	67.2%
Passenger in PNR	67	2.3%
Bus/Shuttle	47	1.6%
Bicycle	29	1.0%
Taxicab	17	0.6%
Other	3	0.1%
TOTAL	2,951	100.0%
No Answer	13	

Access Time (minutes):

Mean	0-5	6-10	11-15	16-20	21-30	Over 30
11.3	28.3%	33.6%	20.1%	10.0%	6.4%	1.5%
7.7	53.2%	33.1%	5.2%	4.2%	4.0%	0.4%
10.6	39.4%	29.5%	13.4%	7.3%	7.5%	2.9%
9.7	37.1%	38.0%	12.2%	6.5%	6.2%	0.0%
13.1	13.4%	33.9%	29.1%	15.1%	8.5%	0.0%
6.8	60.2%	39.8%	0.0%	0.0%	0.0%	0.0%
6.6	40.8%	59.2%	0.0%	0.0%	0.0%	0.0%
29.9	0.0%	43.3%	0.0%	0.0%	0.0%	56.7%
10.3	39.5%	31.1%	13.2%	7.2%	6.7%	2.3%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
BAT	29	61.7%
220	7	14.9%
238	7	14.9%
225	4	8.5%

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	444	16.1%	16.1%
2-4 minutes	619	22.5%	38.6%
5-7	949	34.4%	73.0%
8-10	484	17.6%	90.6%
11-15	136	4.9%	95.5%
16-20	70	2.5%	98.0%
Over 20	54	2.0%	100.0%
TOTAL	2,756	100.0%	100.0%
No Answer	208		
Mean	6.1		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Middleborough/Lakeville** **Middleborough/Lakeville Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	10	1.4%
Drop off	117	16.9%
Park-and-ride	541	78.2%
Passenger in PNR	14	2.0%
Bus/Shuttle	0	0.0%
Bicycle	6	0.9%
Taxicab	3	0.4%
Other	2	0.3%
TOTAL	692	100.0%
No Answer	4	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	20.6	13.0%	12.5%	0.0%	14.7%	59.8%	0.0%
Drop off	12.0	32.3%	33.3%	7.6%	14.6%	10.9%	1.3%
Park-and-ride	17.1	15.5%	15.7%	20.7%	20.3%	20.9%	6.8%
Passenger in PNR	15.0	0.0%	50.3%	9.3%	19.4%	21.0%	0.0%
Bus/Shuttle							
Bicycle	5.0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Taxicab	8.6	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Other	45.0	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
TOTAL	16.2	18.6%	19.5%	17.7%	19.0%	19.5%	5.8%

Bus/Shuttle Transfers:

Route	Number of Riders	Percent of Riders

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	202	36.1%	36.1%
2-4 minutes	54	9.7%	45.9%
5-7	156	27.9%	73.8%
8-10	82	14.7%	88.5%
11-15	31	5.5%	94.0%
16-20	22	3.9%	97.9%
Over 20	12	2.1%	100.0%
TOTAL	559	100.0%	100.0%
No Answer	137		
Mean	5.5		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Middleborough/Lakeville** **Bridgewater Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	99	15.9%
Drop off	67	10.8%
Park-and-ride	435	69.9%
Passenger in PNR	7	1.1%
Bus/Shuttle	0	0.0%
Bicycle	8	1.3%
Taxicab	5	0.8%
Other	1	0.2%
TOTAL	623	100.0%
No Answer	2	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	10.1	34.1%	39.2%	8.2%	12.9%	5.5%	0.0%
Drop off	6.6	58.9%	32.9%	5.6%	0.0%	2.6%	0.0%
Park-and-ride	9.3	47.8%	30.5%	9.7%	5.9%	3.3%	2.7%
Passenger in PNR	9.5	27.8%	47.1%	0.0%	25.1%	0.0%	0.0%
Bicycle	10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Taxicab	6.7	38.6%	61.4%	0.0%	0.0%	0.0%	0.0%
Other	10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
TOTAL	9.1	46.0%	33.5%	8.7%	6.5%	3.4%	1.9%

Bus/Shuttle Transfers:

Route	Number of Riders	Percent of Riders

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	56	9.4%	9.4%
2-4 minutes	151	25.4%	34.8%
5-7	213	35.9%	70.7%
8-10	99	16.7%	87.4%
11-15	27	4.5%	91.9%
16-20	29	4.9%	96.8%
Over 20	19	3.2%	100.0%
TOTAL	594	100.0%	100.0%
No Answer	32		
Mean	7.0		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Middleborough/Lakeville** **Campello Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	42	10.0%
Drop off	51	12.2%
Park-and-ride	312	74.6%
Passenger in PNR	11	2.6%
Bus/Shuttle	2	0.5%
Bicycle	0	0.0%
Taxicab	0	0.0%
Other	0	0.0%
TOTAL	418	100.0%
No Answer	0	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	9.6	34.1%	37.4%	13.5%	15.0%	0.0%	0.0%
Drop off	5.8	58.9%	37.9%	0.0%	0.0%	3.2%	0.0%
Park-and-ride	7.1	58.0%	26.8%	12.4%	0.4%	1.5%	0.9%
Passenger in PNR	9.7	25.4%	49.2%	25.4%	0.0%	0.0%	0.0%
Bus/Shuttle	25.0	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
TOTAL	7.3	54.5%	29.7%	11.3%	1.8%	2.0%	0.7%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
BAT	2	100.0%

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	50	12.2%	12.2%
2-4 minutes	103	25.1%	37.4%
5-7	167	40.7%	78.1%
8-10	73	17.8%	95.9%
11-15	10	2.4%	98.3%
16-20	3	0.7%	99.0%
Over 20	4	1.0%	100.0%
TOTAL	410	100.0%	100.0%
No Answer	7		
Mean	5.4		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Middleborough/Lakeville** **Brockton Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	85	34.3%
Drop off	53	21.4%
Park-and-ride	86	34.7%
Passenger in PNR	0	0.0%
Bus/Shuttle	19	7.7%
Bicycle	2	0.8%
Taxicab	3	1.2%
Other	0	0.0%
TOTAL	248	100.0%
No Answer	1	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	13.3	19.0%	22.9%	37.3%	13.4%	4.9%	2.4%
Drop off	6.6	47.7%	49.6%	2.6%	0.0%	0.0%	0.0%
Park-and-ride	5.8	64.4%	31.1%	2.4%	2.1%	0.0%	0.0%
Passenger in PNR							
Bus/Shuttle	15.0	0.0%	54.6%	10.9%	24.8%	9.6%	0.0%
Bicycle	5.0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Taxicab	10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Other							
TOTAL	9.3	40.1%	34.2%	15.1%	7.3%	2.4%	0.8%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
BAT	19	100.0%

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	28	11.6%	11.6%
2-4 minutes	54	22.3%	33.9%
5-7	73	30.2%	64.1%
8-10	49	20.2%	84.3%
11-15	25	10.3%	94.6%
16-20	7	2.9%	97.5%
Over 20	6	2.5%	100.0%
TOTAL	242	100.0%	100.0%
No Answer	6		
Mean	7.1		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Middleborough/Lakeville** **Montello Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	77	21.6%
Drop off	44	12.4%
Park-and-ride	213	59.9%
Passenger in PNR	11	3.1%
Bus/Shuttle	8	2.2%
Bicycle	0	0.0%
Taxicab	2	0.6%
Other	0	0.0%
TOTAL	356	100.0%
No Answer	0	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	12.1	31.9%	33.0%	9.5%	10.6%	9.8%	5.2%
Drop off	5.4	63.0%	33.5%	3.4%	0.0%	0.0%	0.0%
Park-and-ride	8.6	42.0%	40.8%	9.9%	1.7%	4.4%	1.2%
Passenger in PNR	8.7	37.6%	51.0%	0.0%	0.0%	11.5%	0.0%
Bus/Shuttle	13.7	0.0%	26.1%	73.9%	0.0%	0.0%	0.0%
Bicycle							
Taxicab	2.5	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other							
TOTAL	9.0	41.8%	37.9%	10.0%	3.3%	5.1%	1.9%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
BAT	8	100.0%

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	40	11.5%	11.5%
2-4 minutes	87	25.0%	36.5%
5-7	121	34.8%	71.3%
8-10	76	21.8%	93.1%
11-15	15	4.3%	97.4%
16-20	7	2.0%	99.4%
Over 20	2	0.6%	100.0%
TOTAL	348	100.0%	100.0%
No Answer	8		
Mean	6.1		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Middleborough/Lakeville** **Holbrook/Randolph Station**

Expanded Results

Access Mode to the Train:

Access Time (minutes):

	Number of Riders	Percent of Riders	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	49	9.8%	10.3	22.8%	32.2%	39.7%	0.0%	5.3%	0.0%
Drop off	58	11.6%	5.5	72.9%	18.3%	8.8%	0.0%	0.0%	0.0%
Park-and-ride	345	68.9%	7.8	45.0%	40.0%	12.5%	0.7%	0.8%	1.1%
Passenger in PNR	24	4.8%	7.2	65.6%	17.4%	17.0%	0.0%	0.0%	0.0%
Bus/Shuttle	7	1.4%	12.8	30.6%	0.0%	34.7%	34.7%	0.0%	0.0%
Bicycle	13	2.6%	6.2	68.1%	31.9%	0.0%	0.0%	0.0%	0.0%
Taxicab	5	1.0%	6.5	49.6%	50.4%	0.0%	0.0%	0.0%	0.0%
Other	0	0.0%							
TOTAL	501	100.0%	7.8	47.6%	34.9%	14.7%	1.0%	1.0%	0.8%
No Answer	2								

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
238	7	100.0%

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	49	10.1%	10.1%
2-4 minutes	151	31.0%	41.2%
5-7	169	34.7%	75.9%
8-10	81	16.6%	92.5%
11-15	28	5.7%	98.2%
16-20	2	0.4%	98.6%
Over 20	7	1.4%	100.0%
TOTAL	487	100.0%	100.0%
No Answer	15		
Mean	5.8		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Middleborough/Lakeville** **Braintree Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	4	16.7%
Drop off	4	16.7%
Park-and-ride	16	66.7%
Passenger in PNR	0	0.0%
Bus/Shuttle	0	0.0%
Bicycle	0	0.0%
Taxicab	0	0.0%
Other	0	0.0%
TOTAL	24	100.0%
No Answer	0	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	5.0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Drop off	5.0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Park-and-ride	13.0	25.0%	25.0%	25.0%	0.0%	25.0%	0.0%
TOTAL	10.3	50.0%	16.7%	16.7%	0.0%	16.7%	0.0%

Bus/Shuttle Transfers:

Route	Number of Riders	Percent of Riders

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	8	33.3%	33.3%
2-4 minutes	4	16.7%	50.0%
5-7	8	33.3%	83.3%
8-10	4	16.7%	100.0%
11-15	0	0.0%	100.0%
16-20	0	0.0%	100.0%
Over 20	0	0.0%	100.0%
TOTAL	24	100.0%	100.0%
No Answer	0		
Mean	3.8		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Middleborough/Lakeville** **Quincy Center Station**

Expanded Results

Access Mode to the Train:

Access Time (minutes):

	Number of Riders	Percent of Riders	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	38	42.0%	9.3	24.4%	51.1%	24.4%	0.0%	0.0%	0.0%
Drop off	6	6.6%	5.0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Park-and-ride	36	39.8%	9.4	11.7%	78.6%	9.8%	0.0%	0.0%	0.0%
Passenger in PNR	0	0.0%							
Bus/Shuttle	11	12.2%	7.3	37.3%	31.3%	31.3%	0.0%	0.0%	0.0%
Bicycle	0	0.0%							
Taxicab	0	0.0%							
Other	0	0.0%							
TOTAL	91	100.0%	8.8	25.8%	56.3%	18.0%	0.0%	0.0%	0.0%
No Answer	3								

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
220	7	63.6%
225	4	36.4%

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	12	12.6%	12.6%
2-4 minutes	15	15.8%	28.4%
5-7	43	45.3%	73.7%
8-10	21	22.1%	95.8%
11-15	0	0.0%	95.8%
16-20	0	0.0%	95.8%
Over 20	4	4.2%	100.0%
TOTAL	95	100.0%	100.0%
No Answer	0		
Mean	5.8		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Plymouth/Kingston** **All Stations**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	231	6.5%
Drop off	428	12.0%
Park-and-ride	2,772	77.7%
Passenger in PNR	94	2.6%
Bus/Shuttle	19	0.5%
Bicycle	15	0.4%
Taxicab	3	0.1%
Other	2	0.1%
TOTAL	3,566	100.0%
No Answer	13	

Access Time (minutes):

Mean	0-5	6-10	11-15	16-20	21-30	Over 30
10.7	34.2%	35.7%	13.2%	13.0%	1.0%	2.9%
9.2	38.4%	35.5%	16.3%	6.3%	3.2%	0.3%
10.9	30.3%	36.4%	17.6%	8.1%	5.5%	2.1%
11.1	25.7%	45.8%	13.1%	10.0%	0.0%	5.4%
17.1	0.0%	30.1%	41.7%	0.0%	18.1%	10.1%
7.9	24.3%	63.2%	12.5%	0.0%	0.0%	0.0%
11.8	0.0%	63.4%	36.6%	0.0%	0.0%	0.0%
8.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
10.7	31.1%	36.7%	17.2%	8.1%	4.9%	2.0%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
225	7	36.8%
PAL	7	36.8%
215	4	21.1%
PLB	2	10.5%

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	153	5.0%	5.0%
2-4 minutes	728	23.6%	28.6%
5-7	1,161	37.7%	66.3%
8-10	712	23.1%	89.4%
11-15	192	6.2%	95.6%
16-20	74	2.4%	98.0%
Over 20	62	2.0%	100.0%
TOTAL	3,082	100.0%	100.0%
No Answer	496		
Mean	7.0		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Plymouth/Kingston** **Plymouth Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	18	29.2%
Drop off	19	30.8%
Park-and-ride	20	32.5%
Passenger in PNR	1	1.6%
Bus/Shuttle	2	3.2%
Bicycle	0	0.0%
Taxicab	2	3.2%
Other	0	0.0%
TOTAL	62	100.0%
No Answer	2	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	9.4	34.6%	40.8%	24.6%	0.0%	0.0%	0.0%
Drop off	12.1	27.5%	21.0%	16.8%	34.7%	0.0%	0.0%
Park-and-ride	19.3	16.9%	28.8%	23.7%	15.3%	0.0%	15.3%
Passenger in PNR	5.0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bus/Shuttle	8.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Bicycle							
Taxicab	10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Other							
TOTAL	13.6	24.7%	33.9%	19.4%	16.8%	0.0%	5.3%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
PAL	2	100.0%

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	0	0.0%	0.0%
2-4 minutes	9	16.1%	16.2%
5-7	20	35.7%	51.9%
8-10	12	21.4%	73.3%
11-15	5	8.9%	82.2%
16-20	6	10.7%	92.9%
Over 20	4	7.1%	100.0%
TOTAL	56	100.0%	100.0%
No Answer	7		
Mean	9.9		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Plymouth/Kingston** **Kingston/Route 3 Station**

Expanded Results

Access Mode to the Train:

Access Time (minutes):

	Number of Riders	Percent of Riders	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	8	0.9%	8.1	14.4%	73.1%	12.5%	0.0%	0.0%	0.0%
Drop off	121	13.4%	13.0	14.4%	32.0%	30.0%	14.9%	7.7%	1.0%
Park-and-ride	735	81.4%	15.7	9.2%	30.4%	28.6%	16.1%	9.4%	6.2%
Passenger in PNR	32	3.5%	17.8	14.6%	23.3%	24.1%	22.0%	0.0%	16.1%
Bus/Shuttle	7	0.8%	21.0	0.0%	0.0%	70.1%	0.0%	0.0%	29.9%
Bicycle	0	0.0%							
Taxicab	1	0.1%	15.0	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Other	0	0.0%							
TOTAL	903	100.0%	15.4	10.0%	30.5%	28.9%	15.9%	8.7%	6.0%
No Answer	4								

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
PAL	5	71.4%
PLB	2	28.6%

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	19	3.7%	3.7%
2-4 minutes	69	13.4%	17.1%
5-7	193	37.5%	54.6%
8-10	123	23.9%	78.5%
11-15	54	10.5%	89.0%
16-20	31	6.0%	95.0%
Over 20	26	5.0%	100.0%
TOTAL	515	100.0%	100.0%
No Answer	392		
Mean	9.2		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Plymouth/Kingston** **Halifax Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	10	2.5%
Drop off	50	12.4%
Park-and-ride	333	82.6%
Passenger in PNR	6	1.5%
Bus/Shuttle	0	0.0%
Bicycle	4	1.0%
Taxicab	0	0.0%
Other	0	0.0%
TOTAL	403	100.0%
No Answer	1	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	20.5	29.9%	0.0%	0.0%	51.2%	0.0%	18.9%
Drop off	7.6	38.8%	44.3%	16.9%	0.0%	0.0%	0.0%
Park-and-ride	9.2	34.0%	34.6%	23.6%	6.3%	1.4%	0.0%
Passenger in PNR	10.0	0.0%	78.5%	21.5%	0.0%	0.0%	0.0%
Bicycle	9.5	0.0%	55.7%	44.3%	0.0%	0.0%	0.0%
TOTAL	9.3	33.6%	35.8%	22.4%	6.5%	1.2%	0.5%

Bus/Shuttle Transfers:

Route	Number of Riders	Percent of Riders

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	39	9.9%	9.9%
2-4 minutes	117	29.7%	39.5%
5-7	152	38.6%	78.1%
8-10	69	17.5%	95.6%
11-15	14	3.6%	99.2%
16-20	3	0.8%	100.0%
Over 20	0	0.0%	100.0%
TOTAL	394	100.0%	100.0%
No Answer	11		
Mean	5.3		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Plymouth/Kingston** **Hanson Station**

Expanded Results

Access Mode to the Train:

Access Time (minutes):

	Number of Riders	Percent of Riders	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	11	2.6%	5.4	79.1%	10.5%	10.5%	0.0%	0.0%	0.0%
Drop off	61	14.6%	8.9	38.8%	32.5%	25.3%	0.0%	3.5%	0.0%
Park-and-ride	337	80.4%	9.0	32.4%	44.7%	15.0%	4.8%	2.5%	0.6%
Passenger in PNR	9	2.1%	11.4	0.0%	71.7%	0.0%	28.3%	0.0%	0.0%
Bus/Shuttle	0	0.0%							
Bicycle	0	0.0%							
Taxicab	0	0.0%							
Other	2	0.5%	8.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
TOTAL	419	100.0%	9.0	33.8%	42.8%	16.0%	4.4%	2.5%	0.5%
No Answer	1								

Bus/Shuttle Transfers:

Route	Number of Riders	Percent of Riders

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	23	5.7%	5.7%
2-4 minutes	141	35.0%	40.7%
5-7	123	30.5%	71.2%
8-10	74	18.4%	89.6%
11-15	31	7.7%	97.3%
16-20	3	0.7%	98.0%
Over 20	8	2.0%	100.0%
TOTAL	403	100.0%	100.0%
No Answer	18		
Mean	6.1		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Plymouth/Kingston** **Whitman Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	67	15.8%
Drop off	47	11.1%
Park-and-ride	291	68.6%
Passenger in PNR	14	3.3%
Bus/Shuttle	0	0.0%
Bicycle	6	1.4%
Taxicab	0	0.0%
Other	0	0.0%
TOTAL	424	100.0%
No Answer	3	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	10.0	35.3%	34.7%	9.8%	16.5%	3.7%	0.0%
Drop off	5.8	56.7%	38.1%	5.2%	0.0%	0.0%	0.0%
Park-and-ride	6.6	56.0%	36.7%	2.9%	3.1%	1.4%	0.0%
Passenger in PNR	3.1	82.7%	17.3%	0.0%	0.0%	0.0%	0.0%
Bicycle	5.2	59.7%	40.3%	0.0%	0.0%	0.0%	0.0%
TOTAL	6.9	53.9%	36.0%	4.1%	4.6%	1.5%	0.0%

Bus/Shuttle Transfers:

Route	Number of Riders	Percent of Riders

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	24	5.8%	5.8%
2-4 minutes	97	23.6%	29.3%
5-7	163	39.7%	69.0%
8-10	103	25.1%	94.1%
11-15	18	4.4%	98.5%
16-20	4	1.0%	99.5%
Over 20	2	0.5%	100.0%
TOTAL	411	100.0%	100.0%
No Answer	16		
Mean	6.2		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Plymouth/Kingston** **Abington Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	64	11.8%
Drop off	53	9.8%
Park-and-ride	412	75.9%
Passenger in PNR	13	2.4%
Bus/Shuttle	0	0.0%
Bicycle	2	0.4%
Taxicab	0	0.0%
Other	0	0.0%
TOTAL	543	100.0%
No Answer	0	

Access Time (minutes):

Mean	0-5	6-10	11-15	16-20	21-30	Over 30
10.9	39.8%	30.5%	14.7%	7.8%	0.0%	7.2%
8.1	53.0%	30.1%	7.8%	4.7%	4.5%	0.0%
8.2	41.2%	42.8%	10.8%	3.5%	1.8%	0.0%
6.4	59.3%	40.7%	0.0%	0.0%	0.0%	0.0%
10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
8.4	42.5%	40.2%	10.6%	4.0%	1.8%	0.8%

Bus/Shuttle Transfers:

Route	Number of Riders	Percent of Riders

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	28	5.3%	5.3%
2-4 minutes	149	28.2%	33.6%
5-7	194	36.7%	70.3%
8-10	131	24.8%	95.1%
11-15	12	2.3%	97.4%
16-20	6	1.1%	98.5%
Over 20	8	1.5%	100.0%
TOTAL	528	100.0%	100.0%
No Answer	14		
Mean	6.2		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Plymouth/Kingston** **South Weymouth Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	31	4.6%
Drop off	49	7.3%
Park-and-ride	578	85.9%
Passenger in PNR	12	1.8%
Bus/Shuttle	0	0.0%
Bicycle	3	0.4%
Taxicab	0	0.0%
Other	0	0.0%
TOTAL	673	100.0%
No Answer	0	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	10.9	22.6%	49.3%	10.9%	17.2%	0.0%	0.0%
Drop off	6.8	52.8%	47.2%	0.0%	0.0%	0.0%	0.0%
Park-and-ride	10.1	35.2%	38.8%	11.6%	5.7%	7.5%	1.2%
Passenger in PNR	10.5	0.0%	72.0%	28.0%	0.0%	0.0%	0.0%
Bicycle	10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
TOTAL	9.9	35.0%	40.8%	11.0%	5.7%	6.5%	1.0%

Bus/Shuttle Transfers:

Route	Number of Riders	Percent of Riders

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	16	2.5%	2.5%
2-4 minutes	133	20.5%	22.9%
5-7	264	40.6%	63.5%
8-10	158	24.3%	87.8%
11-15	55	8.5%	96.3%
16-20	9	1.4%	97.7%
Over 20	15	2.3%	100.0%
TOTAL	650	100.0%	100.0%
No Answer	24		
Mean	7.4		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Plymouth/Kingston** **Braintree Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	12	13.3%
Drop off	29	32.2%
Park-and-ride	44	48.9%
Passenger in PNR	5	5.6%
Bus/Shuttle	0	0.0%
Bicycle	0	0.0%
Taxicab	0	0.0%
Other	0	0.0%
TOTAL	90	100.0%
No Answer	0	

Access Time (minutes):

Mean	0-5	6-10	11-15	16-20	21-30	Over 30
12.9	33.0%	0.0%	42.2%	24.8%	0.0%	0.0%
6.2	61.8%	38.2%	0.0%	0.0%	0.0%	0.0%
20.0	0.0%	11.7%	39.4%	11.7%	37.2%	0.0%
7.5	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
13.9	24.4%	23.7%	24.8%	9.0%	18.0%	0.0%

Bus/Shuttle Transfers:

Route	Number of Riders	Percent of Riders

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	0	0.0%	0.0%
2-4 minutes	10	11.2%	11.2%
5-7	42	47.2%	58.4%
8-10	26	29.2%	87.6%
11-15	0	0.0%	87.6%
16-20	11	12.4%	100.0%
Over 20	0	0.0%	100.0%
TOTAL	89	100.0%	100.0%
No Answer	0		
Mean	7.9		

Old Colony Commuter Rail

1998 Passenger Survey

Access to the Train

Line: **Plymouth/Kingston** **Quincy Center Station**

Expanded Results

Access Mode to the Train:

	Number of Riders	Percent of Riders
Walk	11	22.4%
Drop off	0	0.0%
Park-and-ride	25	51.0%
Passenger in PNR	4	8.2%
Bus/Shuttle	11	22.4%
Bicycle	0	0.0%
Taxicab	0	0.0%
Other	0	0.0%
TOTAL	49	100.0%
No Answer	0	

Access Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	9.3	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Drop off							
Park-and-ride	10.3	42.9%	14.3%	28.6%	14.3%	0.0%	0.0%
Passenger in PNR	10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Bus/Shuttle	16.7	0.0%	33.3%	33.3%	0.0%	33.3%	0.0%
Bicycle							
Taxicab							
Other							
TOTAL	11.4	21.4%	42.9%	21.4%	7.1%	7.1%	0.0%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
225	7	63.6%
215	4	36.4%

Wait Time at Boarding Station:

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	4	9.8%	9.8%
2-4 minutes	4	9.8%	19.5%
5-7	11	26.8%	46.3%
8-10	18	43.9%	90.2%
11-15	4	9.8%	100.0%
16-20	0	0.0%	100.0%
Over 20	0	0.0%	100.0%
TOTAL	41	100.0%	100.0%
No Answer	10		
Mean	7.2		

4. Trip Purpose and Alternate Means

Information Contained

Each Trip Purpose and Alternate Means report consists of three tables on one page. The first table, Trip Purposes, shows the number and percentage of the riders in the selected group having each of nine trip purposes. These were cross-tabulations of the results of questions 3a and 8a, which show the activities preceding and following the Old Colony trip. The first seven trip purposes listed are Home-based trips. These are trips having the activity at either the beginning (question 3a) or end (question 8a) shown as At home, and the activity at the opposite end shown as one of the seven other purposes on the survey check-off lists.

The eighth trip purpose, Work-based trips, consists of trips having the activity at either the beginning or end shown as At work, and the activity at the opposite end shown as any of the trip purposes on the survey check-off lists other than At home. Trips from work to work are included, as some respondents were traveling between two jobs.

The ninth trip purpose listed, Non Home or Work-based consists of trips that did not have At home or At Work shown as the activity at either trip end but did show the activities at both ends of the trip.

The second table in the Trip Purpose and Alternate Means Report is Alternate Means of Transportation Used before Old Colony. This shows the number and percentage of riders in the selected group indicating that they used each of the prior travel modes listed in question 12. As discussed below, the results as presented in this table are of limited usefulness, because not all respondents interpreted the question the same way. Some listed two or more prior modes to indicate use of different alternatives on different days, but other listed several modes to indicate prior multi-modal trips. The discussion includes a further separation of these groups. The second part of the second table provides breakdowns of former private carrier users by former carrier and of former commuter rail users by former boarding station.

The third table in the Trip Purpose and Alternate Means Report is Alternate Means of Transportation Still Used. This shows the number and percentage of riders in the selected group indicating in question 13 that they continue to use each of the alternate travel modes listed. As discussed below, the results as presented in this table are of limited usefulness, because not all respondents interpreted the question the same way. Some listed continuing use of other means of transportation to indicate regular alternation with use of Old Colony service, and some to indicate occasional use of other means. Others listed continuing use of alternate means to indicate their access or egress modes. The discussion includes a further separation of these groups.

The second part of the third table provides breakdowns of passengers continuing to use private carrier by carrier and of passengers continuing to use other commuter rail lines by boarding stations on those lines.

Trip Purposes

Home-based work trips accounted for the largest numbers of riders by far on both Old Colony branches (81.6% on the Middleborough/Lakeville Line and 85.5% on the Plymouth/Kingston Line.) Most of these were going from home to work, with under 1% on each line (25 to 30 riders) making return halves of reverse-commuting work trips.

Home-based school trips were a distant second in importance at 6.4% of riders on the Middleborough/Lakeville Line and 5.5% on the Plymouth/Kingston Line. On the Middleborough/Lakeville Line the number of school-to-home trips was slightly greater than the number of work-to-home trips, mostly because of commuting students attending Bridgewater State College. On the Plymouth/Kingston Line there were no school-to-home trips, however.

The rest of the trips on both lines were scattered among the other seven trip purposes listed in the tables. On the Middleborough/Lakeville Line the highest share for any of these purposes was 3.1% for work-based trips, with a variety of purposes at the non-work end. Below the top two trip purposes the highest share for any purpose on the Plymouth/Kingston Line, and the second-highest on the Middleborough/Lakeville Line (both at slightly over 2%) was Home-based Social Activity trips. Most of these had the social activity in Boston.

Alternate Means of Transportation Used Before Old Colony

New trips

At the time of the survey, 80% of the riders on the Middleborough/Lakeville Line and 82% on the Plymouth/Kingston Line were making trips that they had previously made by other means of transportation. Consequently, 590 and 625 riders respectively on the two lines were making trips that they had not made before they began using Old Colony trains. These riders had either relocated to the Old Colony service area or had started going to new work, school, or other destinations since September 1997. It cannot be determined from the survey how many of these riders changed their travel patterns as a direct result of Old Colony service and how many had changes in their transportation needs that happened to coincide with the Old Colony re-opening. Construction work on the Old Colony lines took several years, and the startup of service was delayed by about one year from a date previously announced. Some Old Colony riders may have relocated to the South Shore in anticipation of the service restoration and used other means of transportation temporarily. Depending on how they answered the survey questions, such riders might or might not have been counted as new trip-makers.

Adjustments for Multi-Modal Prior Trips

The survey question on previous means of transportation asked passengers to check as many modes as applied, and to indicate the number of days per week that each was typically used if more than one was checked. On both branches, about two thirds of the passengers who had made the same trips before the start of Old Colony service listed only one prior mode and about one third listed more than one. Some of those listing more than one prior mode did so to indicate use of different modes on different days, but others did so to describe trips that required the use of two or more modes. Conversely, some passengers who listed only one prior mode listed modes that could not have been used alone to complete the trip indicated. A frequent example of this was showing only the Brockton Area Transit (BAT) bus from Brockton to Ashmont Station as the mode of transportation for a trip to downtown Boston.

The reports of Trip Purpose and Alternate Means show the expanded total number of responses for use of each prior transportation mode, but do not distinguish between multi-modal trips, trips using different modes on different days, and incompletely described multi-modal trips. To obtain a clearer picture of how passengers traveled before Old Colony service began, it was necessary to do some additional manual processing of the data. For this purpose, passengers who listed several prior modes and showed all as being used the same number of days per week as total travel were assumed to be describing multi-modal trips. Because of the wording of the question, passengers who listed several prior modes without showing the frequency of use for any of them were also assumed to be describing multi-modal trips. Passengers who listed several modes and showed frequencies that added up to the weekly total shown were assumed to be indicating use of different modes on different days. Such trips were allocated to the respective modes in proportion to the frequencies indicated. Responses showing only single prior modes that could not have been used alone to complete the trips indicated were re-classified as multi-modal trips.

Diversions from Rapid Transit Lines

With the adjustments above, the largest source of riders on both branches among those who had made the same trips before was diversions from rapid transit lines. These accounted for about 41% of the previous trip-makers on the Middleborough/Lakeville Line and for about 39% on the Plymouth/Kingston Line. The survey form did not separate former rapid transit users by boarding station or line. Based on the locations of trip origins, however, most of the rapid transit diversions would have been from the Red Line, with Braintree, Quincy Adams, Quincy Center, and Ashmont expected to have the largest numbers of diversions. The slightly higher rate of prior rapid transit use among Middleborough/Lakeville Line riders was partly a reflection of the greater number of feeder bus routes to the Red Line from the territory served by that branch of the Old Colony. The survey did not provide a complete breakdown of modes of access to rapid transit lines formerly used but more than half of these riders would have had to use automobiles to reach rapid transit stations from the origins shown.

Diversions from Driving

The second-largest group of previous trip-makers on each line (26% on the Middleborough/Lakeville Line and 29% on the Plymouth/Kingston Line) consisted of people who formerly drove alone for the entire trip. The higher former auto use rate for Plymouth/Kingston Line passengers was partly a result of the greater distance of the communities on that line from older commuter rail lines, as well as of the lower level of Red Line feeder bus service. These results indicate that as of the Fall of 1998, Old Colony service had diverted a total of about 1,300 auto trips a day from downtown Boston. The automobile reduction on highways south of Braintree was even greater, as at least another 1,300 former auto trips to Red Line stations or to final destinations in Braintree or Quincy were also diverted to the Old Colony Lines. (This figure is imprecise because of passengers reporting former use of rapid transit without specifying access mode.)

Diversions from Private-Carrier Bus Routes

The third-largest group of previous trip-makers on each line (17% on the Middleborough/Lakeville Line and 22% on the Plymouth/Kingston Line) consisted of people who formerly used private-carrier bus routes running through to downtown Boston. The higher rate for Plymouth/Kingston Line passengers was a result both of the more extensive private bus network in the service area of that branch prior to Old Colony service and of the greater distance of that branch from older commuter rail lines. (To avoid double-counting, passengers formerly using the BAT bus route to Ashmont are included in the rapid transit percentages above but not in these private bus percentages.)

On the survey form, passengers indicating former use of private carrier bus lines were asked to specify which carrier they had used, but about one third did not do so. Nevertheless, based on the origins shown, the routes and schedules provided before the start of Old Colony service, and the carriers specified by other passengers with similar origins, it was possible to estimate the probable former private carriers used by passengers who did not specify them.

After adjustments for passengers using different modes on different days, about 1,050 former private bus (non-BAT) users a day were making inbound trips on the Old Colony lines at the time of the survey. The greatest number of diversions (about 615) came from the Plymouth & Brockton Street Railway Company (P&B), which also had operated the greatest number of bus trips in the Old Colony service area. The diversions were equivalent to about 40% of P&B's A.M. peak systemwide ridership prior to the start of Old Colony service. Most of the diversion from P&B were to the Plymouth/Kingston Line. The Middleborough/Lakeville Line captured most of the former riders of the P&B Brockton-Boston route, which was discontinued just before the survey was conducted. That route had been carrying only 30 to 40 riders a day even before the start of Old Colony service, however. P&B also made substantial service cutbacks on several other routes at around the time the survey was taken.

The second-largest absolute number of diversions (about 185 per day) came from Interstate Coach, which had several route variations from Middleborough and Bridgewater to Boston. The diversions were equivalent to about 60% of Interstate's pre-Old Colony ridership. Interstate has cut back service substantially since the start of Old Colony service, with some cuts preceding and others following the survey.

No other individual private carrier lost more than 100 riders a day to Old Colony service, but BAT buses to Ashmont lost at least 130 inbound riders. This total does not include riders who used these buses but listed only rapid transit as the prior mode.

Carey's Bus Service, which had operated peak-period trips to Boston from Whitman, Abington, Rockland, and South Weymouth, had the largest percentage loss among private carriers (about 70%), from diversion of 85 riders. Carey's left the fixed-route business a few months after the start of Old Colony service, but some former Carey's trips were taken over by JBL Bus Lines. (In the trip purpose reports, the symbol JBL denotes former use of Carey's or JBL routes.)

Three other private carriers had losses of 15% to 20% of riders on routes with Old Colony competition. These were American Eagle Motor Coach (from New Bedford), Bonanza Bus Lines (from Fall River, Falmouth, and Wareham), and Bloom Bus Lines (from Taunton). During the first two years of Old Colony service these three companies did not make any substantial service alterations that appeared to have resulted from commuter rail competition.

Diversions from Other Commuter Rail Lines

Diversions from older commuter rail lines were the fourth-largest source of former trip-makers on the Middleborough/Lakeville Line at 13%, but were only sixth, at under 1%, on the Plymouth/Kingston Line. In absolute terms, about 285 Middleborough/ Lakeville Line riders had previously made the same trips using other commuter rail lines. In contrast, the 1993 survey showed 475 riders a day with trips starting in cities and towns now served directly by this line and another 510 from towns adjoining it but not served directly by any other line. This implies that large numbers of commuters who had trip origins in the present Middleborough/Lakeville Line service area in 1993 either continued using their former rail lines, switched to travel modes other than the Old Colony, or were no longer making the same trips by 1998.

The Old Colony survey results indicate that most of the 1993 commuter rail riders from Lakeville, Middleborough, and Bridgewater were diverted to the Middleborough/ Lakeville Line, but that only about one third of the riders from Brockton or Randolph were diverted. This was largely a result of Old Colony lines not providing direct service to Back Bay or Ruggles Station. The number of riders from both Brockton and Randolph alighting at these two stations in 1993 was equal to about two thirds of the difference between the 1993 totals and the Old Colony diversions. For some other riders, stations on older lines would have continued to be more attractive than Old Colony stations because of access, parking, or train schedules. In 1993 the most

common commuter rail boarding location for Brockton residents was Stoughton Station, which is in a town directly adjoining Brockton. From Randolph, the most common boarding locations in 1993 were the Stoughton and Route 128 stations, both of which are in adjoining towns. The numbers of new transit users from both Brockton (325) and Randolph (90) attracted to the Middleborough/Lakeville Line were, however, about the same as the commuter rail totals from these origins in 1993. Even larger numbers of Old Colony trips originating in Brockton or Randolph were diverted from the Red Line, including trips via BAT buses to Ashmont Station.

Among towns adjoining those served directly by the Middleborough/Lakeville Line and not themselves served directly by any other line, diversions of trips from East Bridgewater, West Bridgewater, Freetown, and Rochester were all close to their 1993 commuter rail totals. On the other hand, diversions from Easton and Taunton were equivalent to only about 5% of the 1993 commuter rail riders from these towns. From Raynham, the ratio was about 20%. Easton directly adjoins Stoughton, Mansfield and Sharon. Boardings from Easton in 1993 were divided among the stations in those towns plus Route 128 and the two stations in Canton. Easton also borders directly on Brockton and most of the Middleborough/Lakeville Line boardings from Easton took place at the Montello or Campello stations in Brockton. The total number of new transit users from Easton (10) was only half as great the total number of commuter rail diversions, but slightly greater than the number of riders from there diverted from rapid transit or buses.

Taunton borders directly on Lakeville and does not border directly on any town with a station on an older commuter rail line. Nevertheless, population distribution and highway layout are such that older stations are still more convenient than Middleborough/Lakeville Station for a majority of Taunton residents. Most of the 1993 commuter rail boardings from Taunton took place at Mansfield Station. The number of new transit users attracted to the Middleborough/Lakeville Line from Taunton (40) exceeded diversions from all prior transit modes combined (25).

Raynham borders directly on Middleborough and Bridgewater, and does not border directly on any town with a station on an older commuter rail line. In 1993 most commuter rail users from Raynham boarded at Mansfield or Stoughton. Most of these riders still found those to be the most convenient stations in 1998. The number of new transit users from Raynham attracted to the Middleborough/Lakeville Line (20) was about the same as the number apparently continuing to use the older stations, and was also about the same as the total number of riders diverted from all transit modes combined.

On the Plymouth/Kingston Line only about 25 riders reported having been former commuter rail users, with about 10 of these having trip origins in one of the towns served directly. In contrast, the 1993 survey results showed about 30 riders a day just from the towns now served directly by this line. (The low percentage of riders with South Shore origins in the overall 1993 sample reduced the reliability of expansion of responses from that survey somewhat.) Nearly half of the passengers from points on

the Plymouth/Kingston Line in 1993 were going to destinations around Back Bay Station. These riders probably preferred to continue using trains that went there directly. Some changes in the individuals from these towns using rail service would be expected between 1993 and 1998 in any event. Almost all of the diversions came from the Attleborough/Stoughton Line, with the most common former boarding locations being Stoughton and Route 128. Boardings from individual towns in the Plymouth/ Kingston Line service area diverted from older commuter rail lines were all negligible compared with new transit riders and diversions from transit services other than commuter rail.

Diversions from Carpools

Diversions from carpools (excluding carpooling to reach a transit station) were the fifth-largest source of former trip-makers on the Middleborough/Lakeville Line at 4%, and were fourth, at 6%, on the Plymouth/Kingston Line. In absolute terms this was about 90 and 185 inbound riders a day. This difference is partly attributable to the greater distance of the Plymouth/Kingston Line service area from older commuter rail lines as well as the lower availability of feeder service to rapid transit lines from the towns on that branch.

The net impact of these carpool diversions on highway traffic cannot be determined from the survey results. If one rider dropped out of a carpool that continued to operate with the same other members, the only change in highway traffic would be in the access trip to the carpool. If a carpool member diverted to commuter rail was replaced by a new member who formerly drove alone, there would be a net reduction in highway traffic. If the diversion of a carpool member to a train resulted in disbanding of the pool with other former members switching to individual autos there would be a net increase in highway traffic.

Diversions from Commuter Boat

Diversions from commuter boats accounted for only 0.3% of former trip-makers (seven riders, all from Braintree or Weymouth) on the Middleborough/Lakeville Line. On the Plymouth/Kingston Line, however, 3% of former trip-makers (90) came from commuter boats. This was the fifth-largest source of diversions to that branch and was nearly four times as great as diversions from older commuter rail lines. Origin points of these trips were scattered through the service area of the Plymouth/Kingston Line. About half came from towns without rail stations but with shorter access distance to the station used than to a commuter boat terminal.

Alternate Means of Transportation Still Used

Passengers who reported using Old Colony Lines on fewer than five days per week could have meant either that they used other means of transportation for the same trips on the days that they did not use Old Colony service or that they did not make the same trips at all on those days. Even passengers reporting Old Colony use on five or six days

per week could have been indicating a combination of Saturday or Sunday travel and use of weekday service on fewer than five days. Survey question 10 on Saturday and Sunday use and question 13 on continuing use of other means of transportation were designed in part to help determine how many passengers alternated use of Old Colony service with other means of transportation.

The wording of question 13 was "Do you continue to use any other means to make this trip?" Overall about 40% of the survey respondents reported that they did do so. Comparisons of the responses to question 13 with responses to other questions on the same surveys indicate that respondents did not all interpret question 13 in the same way. Some were apparently trying to show regular alternation of Old Colony riding with use of other means of transportation, as intended by the question. Others apparently thought that the question referred to the need to use other means of transportation for access to or egress from Old Colony trains. Still others apparently meant to show that they used Old Colony service most of the time but still used other means occasionally.

To calculate the percentage of riders regularly alternating between use of Old Colony trains and use of other travel means, it was necessary to do some additional processing of the survey results. Passengers who showed in Question 9 that they used Old Colony service five days a week and in question 10 that they used Old Colony trains only occasionally or not at all on Saturdays and Sundays were presumed to use Old Colony trains on every weekday. Likewise, passengers who showed that they used Old Colony service six days a week, but only regularly on one of the two weekend days, and passengers who showed that they used Old Colony service regularly seven days a week were presumed to use Old Colony trains on every weekday. When such passengers listed alternate means of transportation in Question 13 they were assumed to be referring to access, egress, or infrequent use rather than regular alternation with Old Colony trains. Passengers who showed use of Old Colony trains on fewer than five days a week but showed boarding at Old Colony stations other than the ones they listed in question 1 as the only alternate means of transportation were also excluded from the number alternating between Old Colony trains and other means of transportation.

With the adjustments above, at most 11.6% of Middleborough/Lakeville Line riders and at most 13.7% of Plymouth/Kingston Line riders apparently continued to use other means of travel regularly instead of Old Colony service for the same trips. Even these percentages may be high, because the calculation method did not allow adjustments for passengers riding fewer than five days a week and intending to indicate use of alternate means either for access or egress only or on an infrequent basis. On the other hand, some sampling bias was probably introduced by lower response rates from less frequent riders who did not think that the survey pertained to them.

On both branches, the largest group of passengers who alternated regularly between Old Colony trains and other means of travel reported driving alone for the entire trip as the only alternate means used. This was slightly more important among Plymouth/

Kingston Line riders (9.4%) than among Middleborough/Lakeville riders (6.9%). The higher rate on the Plymouth/Kingston Line was largely the result of a high rate of alternating between driving and train use for trips originating in Plymouth. In the survey results, Plymouth was the largest individual source of trip origins on the Plymouth/ Kingston Line, and the second-largest source for both branches combined, but the station in Plymouth has been served only in off-peak hours since Old Colony service resumed. Most peak-period trips from Plymouth were made by boarding at Kingston Station, with the majority of those trips including access by driving alone and parking at the station. Thus, an unusually high proportion of Old Colony users from Plymouth had the capability of driving for the entire trip if they chose to do so.

The differences between the two branches in percentages of passengers using most alternate modes other than driving the entire distance were small. Commuter boats were used as an alternative by a higher share of Plymouth/Kingston Line riders, but the absolute number from that line reporting alternating with this mode was only 25.

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Middleborough/Lakeville** **All Stations**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	2,398	81.6%	81.6%
Home-based School	187	6.4%	88.0%
Home-based Shopping	5	0.2%	88.2%
Home-based Social Activity	67	2.3%	90.5%
Home-based Personal Business	55	1.9%	92.3%
Home-based Work-related	63	2.1%	94.5%
Home-based Other	45	1.5%	96.0%
Work-based	90	3.1%	99.1%
Non Home or Work-based	27	0.9%	100.0%
TOTAL	2,937	100.0%	100.0%
No Answer	28		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	1,113	37.5%	4.0
Carpool/vanpool	199	6.7%	3.7
Private-carrier bus	519	17.5%	4.1
MBTA Commuter rail	294	9.9%	4.3
MBTA Bus	189	6.3%	4.2
MBTA Subway	913	30.8%	4.3
MBTA Ferry	6	0.2%	4.0
Other	41	1.3%	4.4
TOTAL RIDERS	2,964		

Private carriers used	Riders
Unspecified	167
Brockton Area Transit	110
Interstate Coach	97
American Eagle	37
Other	106

Other commuter rail stations used	Riders
Stoughton	148
Route 128	64
Mansfield	28
Canton Center	12
Other	38

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	645	21.7%	0.4
Carpool/vanpool	76	2.5%	0.3
Private-carrier bus	75	2.5%	0.6
MBTA Commuter rail	71	2.4%	0.2
MBTA Bus	57	1.9%	0.3
MBTA Subway	332	11.2%	0.4
MBTA Ferry	3	0.1%	0.2
Other	28	0.9%	0.2
TOTAL RIDERS	2,964		

Private carriers used	Riders
Unspecified	38
Brockton Area Transit	30
American Eagle	2
Bonanza	2
Other	4

Other commuter rail stations used	Riders
Stoughton	20
Unspecified	13
Route 128	12
Canton Junction	3
Other	6

Note: Percent of riders may total to more than 100 percent due to multiple responses.

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Middleborough/Lakeville** **Middleborough/Lakeville Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	540	78.3%	78.3%
Home-based School	41	5.9%	84.2%
Home-based Shopping	1	0.1%	84.3%
Home-based Social Activity	33	4.8%	89.1%
Home-based Personal Business	16	2.3%	91.4%
Home-based Work-related	16	2.3%	93.8%
Home-based Other	13	1.9%	95.7%
Work-based	23	3.3%	99.0%
Non Home or Work-based	7	1.0%	100.0%
TOTAL	690	100.0%	100.0%
No Answer	4		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	282	40.6%	3.9
Carpool/vanpool	42	6.0%	3.5
Private-carrier bus	193	27.7%	4.0
MBTA Commuter rail	51	7.3%	4.6
MBTA Bus	11	1.6%	4.1
MBTA Subway	84	12.1%	3.7
MBTA Ferry	0	0.0%	
Other	1	0.1%	5.0
TOTAL RIDERS	695		

Private carriers used	Riders
Unspecified	62
American Eagle	35
Interstate Coach	34
Bonanza	32
Other	28

Other commuter rail stations used	Riders
Stoughton	18
Mansfield	16
Route 128	7
Canton Junction	2
Other	10

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	178	25.5%	0.4
Carpool/vanpool	14	2.0%	0.3
Private-carrier bus	22	3.2%	0.8
MBTA Commuter rail	12	1.8%	0.4
MBTA Bus	4	0.6%	0.2
MBTA Subway	39	5.7%	0.5
MBTA Ferry	1	0.1%	0.2
Other	5	0.7%	0.2
TOTAL RIDERS	695		

Private carriers used	Riders
Unspecified	17
American Eagle	2
Bonanza	2

Other commuter rail stations used	Riders
Route 128	2
South Attleboro	2
Franklin	1
Mansfield	1
Other	1

Note: Percent of riders may total to more than 100 percent due to multiple responses.

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Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Middleborough/Lakeville** **Bridgewater Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	489	78.2%	78.2%
Home-based School	68	10.9%	89.1%
Home-based Shopping	1	0.2%	89.3%
Home-based Social Activity	4	0.6%	89.9%
Home-based Personal Business	6	1.0%	90.9%
Home-based Work-related	17	2.7%	93.6%
Home-based Other	6	1.0%	94.6%
Work-based	27	4.3%	98.9%
Non Home or Work-based	7	1.1%	100.0%
TOTAL	625	100.0%	100.0%
No Answer	0		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	257	41.1%	3.9
Carpool/vanpool	67	10.8%	3.4
Private-carrier bus	112	17.9%	4.4
MBTA Commuter rail	43	6.9%	4.4
MBTA Bus	8	1.4%	3.6
MBTA Subway	120	19.2%	4.1
MBTA Ferry	0	0.0%	
Other	12	2.0%	4.0
TOTAL RIDERS	624		

Private carriers used	Riders
Interstate Coach	47
Unspecified	47
HL Bloom	15
Bonanza	1

Other commuter rail stations used	Riders
Stoughton	26
Route 128	11
Attleboro	2
Dedham Corp. Ctr.	2
Other	3

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	146	23.4%	0.3
Carpool/vanpool	23	3.8%	0.2
Private-carrier bus	7	1.1%	1.4
MBTA Commuter rail	12	1.9%	0.3
MBTA Bus	3	0.6%	0.2
MBTA Subway	73	11.7%	0.3
MBTA Ferry	1	0.2%	0.2
Other	5	0.9%	0.2
TOTAL RIDERS	624		

Private carriers used	Riders
Unspecified	3
HL Bloom	1
Interstate Coach	1

Other commuter rail stations used	Riders
Stoughton	4
Route 128	2
Unspecified	2

**Note: Percent of riders may total to more than 100 percent due to multiple responses.*

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Middleborough/Lakeville** **Campello Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	356	86.8%	86.8%
Home-based School	19	4.6%	91.5%
Home-based Shopping	0	0.0%	91.5%
Home-based Social Activity	14	3.4%	94.9%
Home-based Personal Business	7	1.7%	96.6%
Home-based Work-related	4	1.0%	97.6%
Home-based Other	1	0.2%	97.8%
Work-based	9	2.2%	100.0%
Non Home or Work-based	0	0.0%	100.0%
TOTAL	410	100.0%	100.0%
No Answer	7		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	173	41.5%	4.0
Carpool/vanpool	29	7.0%	3.9
Private-carrier bus	74	17.8%	4.0
MBTA Commuter rail	79	19.0%	4.6
MBTA Bus	25	6.1%	4.0
MBTA Subway	133	31.8%	4.1
MBTA Ferry	0	0.0%	
Other	9	2.1%	5.0
TOTAL RIDERS	418		

Private carriers used	Riders
Brockton Area Transit	31
Unspecified	26
Interstate Coach	14
Plymouth & Brockton	2

Other commuter rail stations used	Riders
Stoughton	54
Route 128	11
Mansfield	8
Canton Junction	4
Other	2

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	75	17.9%	0.4
Carpool/vanpool	5	1.2%	0.2
Private-carrier bus	10	2.6%	0.2
MBTA Commuter rail	17	4.0%	0.2
MBTA Bus	5	1.2%	0.6
MBTA Subway	50	12.0%	0.3
MBTA Ferry	0	0.0%	
Other	2	0.5%	0.2
TOTAL RIDERS	418		

Private carriers used	Riders
Unspecified	5
Brockton Area Transit	5

Other commuter rail stations used	Riders
Stoughton	7
Canton Junction	3
Dedham Corp. Ctr.	2
Route 128	1
Other	1

Note: Percent of riders may total to more than 100 percent due to multiple responses.

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Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Middleborough/Lakeville** **Brockton Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	178	71.8%	71.8%
Home-based School	16	6.5%	78.2%
Home-based Shopping	0	0.0%	78.2%
Home-based Social Activity	1	0.4%	78.6%
Home-based Personal Business	5	2.0%	80.6%
Home-based Work-related	14	5.6%	86.3%
Home-based Other	14	5.6%	91.9%
Work-based	10	4.0%	96.0%
Non Home or Work-based	10	4.0%	100.0%
TOTAL	248	100.0%	100.0%
No Answer	1		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	66	26.5%	3.5
Carpool/vanpool	13	5.4%	3.8
Private-carrier bus	64	25.7%	4.0
MBTA Commuter rail	26	10.5%	3.7
MBTA Bus	24	9.9%	2.5
MBTA Subway	84	33.7%	4.1
MBTA Ferry	0	0.0%	
Other	9	3.7%	3.8
TOTAL RIDERS	249		

Private carriers used	Riders
Brockton Area Transit	50
Plymouth & Brockton	5
Unspecified	5
JBL Bus Lines	2

Other commuter rail stations used	Riders
Stoughton	18
Route 128	8

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	36	14.7%	0.5
Carpool/vanpool	3	1.3%	0.2
Private-carrier bus	20	8.0%	0.3
MBTA Commuter rail	11	4.7%	0.2
MBTA Bus	19	7.7%	0.4
MBTA Subway	26	10.7%	0.5
MBTA Ferry	0	0.0%	
Other	5	2.2%	0.2
TOTAL RIDERS	249		

Private carriers used	Riders
Brockton Area Transit	16
Unspecified	6

Other commuter rail stations used	Riders
Stoughton	6
Route 128	2

**Note: Percent of riders may total to more than 100 percent due to multiple responses.*

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1/11/00

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Middleborough/Lakeville** **Montello Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	290	82.9%	82.9%
Home-based School	25	7.1%	90.0%
Home-based Shopping	2	0.6%	90.6%
Home-based Social Activity	6	1.7%	92.3%
Home-based Personal Business	9	2.6%	94.9%
Home-based Work-related	10	2.9%	97.7%
Home-based Other	3	0.9%	98.6%
Work-based	5	1.4%	100.0%
Non Home or Work-based	0	0.0%	100.0%
TOTAL	350	100.0%	100.0%
No Answer	5		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	120	33.7%	4.3
Carpool/vanpool	17	4.9%	4.2
Private-carrier bus	56	15.8%	4.6
MBTA Commuter rail	47	13.2%	4.1
MBTA Bus	30	8.6%	4.3
MBTA Subway	126	35.5%	4.7
MBTA Ferry	0	0.0%	
Other	4	1.2%	5.0
TOTAL RIDERS	355		

Private carriers used	Riders
Brockton Area Transit	25
Unspecified	15
Plymouth & Brockton	12
JBL Bus Lines	2

Other commuter rail stations used	Riders
Stoughton	31
Route 128	7
Canton Center	4
Canton Junction	3
Other	3

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	75	21.0%	0.7
Carpool/vanpool	18	5.2%	0.4
Private-carrier bus	10	2.9%	0.2
MBTA Commuter rail	8	2.3%	0.2
MBTA Bus	8	2.5%	0.4
MBTA Subway	38	10.9%	0.2
MBTA Ferry	0	0.0%	
Other	10	2.8%	0.2
TOTAL RIDERS	355		

Private carriers used	Riders
Brockton Area Transit	8
Unspecified	1

Other commuter rail stations used	Riders
Unspecified	5
Stoughton	2
Route 128	1

Note: Percent of riders may total to more than 100 percent due to multiple responses.

CTPS
1/11/00

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Middleborough/Lakeville** **Holbrook/Randolph Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	440	88.4%	88.4%
Home-based School	14	2.8%	91.2%
Home-based Shopping	0	0.0%	91.2%
Home-based Social Activity	8	1.6%	92.8%
Home-based Personal Business	11	2.2%	95.0%
Home-based Work-related	3	0.6%	95.6%
Home-based Other	8	1.6%	97.2%
Work-based	11	2.2%	99.4%
Non Home or Work-based	3	0.6%	100.0%
TOTAL	498	100.0%	100.0%
No Answer	5		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	194	38.5%	4.3
Carpool/vanpool	24	4.9%	3.9
Private-carrier bus	15	3.0%	1.1
MBTA Commuter rail	46	9.3%	4.1
MBTA Bus	80	16.0%	4.7
MBTA Subway	274	54.5%	4.6
MBTA Ferry	2	0.4%	4.0
Other	4	0.8%	5.0
TOTAL RIDERS	503		

Private carriers used	Riders
Unspecified	7
American Eagle	2
HL Bloom	3
Trade Center Shuttle	2

Other commuter rail stations used	Riders
Route 128	20
Canton Center	8
Unspecified	6
Canton Junction	2
Other	7

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	103	20.5%	0.4
Carpool/vanpool	11	2.3%	0.2
Private-carrier bus	0	0.0%	
MBTA Commuter rail	9	1.8%	0.2
MBTA Bus	16	3.2%	0.2
MBTA Subway	74	14.8%	0.5
MBTA Ferry	0	0.0%	
Other	0	0.0%	
TOTAL RIDERS	503		

Private carriers used	Riders

Other commuter rail stations used	Riders
Route 128	5
Unspecified	5

Note: Percent of riders may total to more than 100 percent due to multiple responses.

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Middleborough/Lakeville** **Braintree Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	24	100.0%	100.0%
Home-based School	0	0.0%	100.0%
Home-based Shopping	0	0.0%	100.0%
Home-based Social Activity	0	0.0%	100.0%
Home-based Personal Business	0	0.0%	100.0%
Home-based Work-related	0	0.0%	100.0%
Home-based Other	0	0.0%	100.0%
Work-based	0	0.0%	100.0%
Non Home or Work-based	0	0.0%	100.0%
TOTAL	24	100.0%	100.0%
No Answer	0		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	8	33.3%	3.0
Carpool/vanpool	0	0.0%	
Private-carrier bus	4	16.6%	4.0
MBTA Commuter rail	0	0.0%	
MBTA Bus	0	0.0%	
MBTA Subway	16	66.6%	3.0
MBTA Ferry	4	16.6%	4.0
Other	0	0.0%	
TOTAL RIDERS	24		

Private carriers used Riders

Unspecified 4

Other commuter rail stations used Riders

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	8	33.3%	1.5
Carpool/vanpool	0	0.0%	
Private-carrier bus	4	16.6%	1.0
MBTA Commuter rail	0	0.0%	
MBTA Bus	0	0.0%	
MBTA Subway	4	16.6%	0.2
MBTA Ferry	0	0.0%	
Other	0	0.0%	
TOTAL RIDERS	24		

Private carriers used Riders

Unspecified 4

Other commuter rail stations used Riders

**Note: Percent of riders may total to more than 100 percent due to multiple responses.*

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11/30/99

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Middleborough/Lakeville** **Quincy Center Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	81	89.0%	89.0%
Home-based School	4	4.4%	93.4%
Home-based Shopping	0	0.0%	93.4%
Home-based Social Activity	0	0.0%	93.4%
Home-based Personal Business	0	0.0%	93.4%
Home-based Work-related	0	0.0%	93.4%
Home-based Other	0	0.0%	93.4%
Work-based	6	6.6%	100.0%
Non Home or Work-based	0	0.0%	100.0%
TOTAL	91	100.0%	100.0%
No Answer	4		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	11	11.8%	2.9
Carpool/vanpool	4	4.4%	5.0
Private-carrier bus	0	0.0%	
MBTA Commuter rail	0	0.0%	
MBTA Bus	7	7.4%	4.5
MBTA Subway	74	79.4%	4.5
MBTA Ferry	0	0.0%	
Other	0	0.0%	
TOTAL RIDERS	94		

Private carriers used Riders

Other commuter rail stations used Riders

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	23	24.4%	0.5
Carpool/vanpool	0	0.0%	
Private-carrier bus	0	0.0%	
MBTA Commuter rail	0	0.0%	
MBTA Bus	0	0.0%	
MBTA Subway	24	25.9%	0.6
MBTA Ferry	0	0.0%	
Other	0	0.0%	
TOTAL RIDERS	94		

Private carriers used Riders

Other commuter rail stations used Riders

**Note: Percent of riders may total to more than 100 percent due to multiple responses.*

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Plymouth/Kingston** **All Stations**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	3,044	85.5%	85.5%
Home-based School	195	5.5%	91.0%
Home-based Shopping	27	0.8%	91.7%
Home-based Social Activity	80	2.2%	94.0%
Home-based Personal Business	38	1.1%	95.0%
Home-based Work-related	53	1.5%	96.5%
Home-based Other	29	0.8%	97.3%
Work-based	50	1.4%	98.7%
Non Home or Work-based	45	1.3%	100.0%
TOTAL	3,561	100.0%	100.0%
No Answer	18		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	1,519	42.4%	3.8
Carpool/vanpool	267	7.4%	3.9
Private-carrier bus	704	19.6%	4.2
MBTA Commuter rail	23	0.6%	4.5
MBTA Bus	61	1.7%	3.6
MBTA Subway	1,273	35.5%	4.2
MBTA Ferry	110	3.0%	3.9
Other	40	1.1%	4.2
TOTAL RIDERS	3,579		

Private carriers used	Riders
Plymouth & Brockton	354
Unspecified	278
JBL Bus Lines	54
Interstate Coach	9
Other	5

Other commuter rail stations used	Riders
Stoughton	8
Route 128	7
Hyde Park	3
Unspecified	3
Other	2

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	898	25.0%	0.4
Carpool/vanpool	95	2.6%	0.6
Private-carrier bus	76	2.1%	1.0
MBTA Commuter rail	34	0.9%	0.5
MBTA Bus	24	0.6%	0.2
MBTA Subway	475	13.2%	0.4
MBTA Ferry	59	1.6%	0.7
Other	63	1.7%	0.4
TOTAL RIDERS	3,579		

Private carriers used	Riders
Plymouth & Brockton	36
Unspecified	36
Interstate Coach	2
Bonanza	1

Other commuter rail stations used	Riders
Unspecified	6

Note: Percent of riders may total to more than 100 percent due to multiple responses.

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Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Plymouth/Kingston** **Plymouth Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	11	17.5%	17.5%
Home-based School	8	12.7%	30.2%
Home-based Shopping	1	1.6%	31.7%
Home-based Social Activity	16	25.4%	57.1%
Home-based Personal Business	5	7.9%	65.1%
Home-based Work-related	5	7.9%	73.0%
Home-based Other	8	12.7%	85.7%
Work-based	6	9.5%	95.2%
Non Home or Work-based	3	4.8%	100.0%
TOTAL	63	100.0%	100.0%
No Answer	0		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	33	52.8%	1.7
Carpool/vanpool	6	9.7%	1.7
Private-carrier bus	7	10.9%	1.7
MBTA Commuter rail	0	0.0%	
MBTA Bus	4	6.9%	0.6
MBTA Subway	5	8.1%	1.8
MBTA Ferry	0	0.0%	
Other	0	0.0%	
TOTAL RIDERS	63		

Private carriers used	Riders
Plymouth & Brockton	4
Unspecified	3

Other commuter rail stations used Riders

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	19	31.3%	0.7
Carpool/vanpool	5	7.8%	0.8
Private-carrier bus	2	3.1%	0.2
MBTA Commuter rail	3	4.6%	0.2
MBTA Bus	0	0.0%	
MBTA Subway	2	3.6%	0.2
MBTA Ferry	0	0.0%	
Other	1	1.5%	0.2
TOTAL RIDERS	63		

Private carriers used	Riders
Plymouth & Brockton	1
Unspecified	1

Other commuter rail stations used Riders

**Note: Percent of riders may total to more than 100 percent due to multiple responses.*

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Plymouth/Kingston** **Kingston/Route 3 Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	681	75.5%	75.5%
Home-based School	72	8.0%	83.5%
Home-based Shopping	18	2.0%	85.5%
Home-based Social Activity	39	4.3%	89.8%
Home-based Personal Business	15	1.7%	91.5%
Home-based Work-related	25	2.8%	94.2%
Home-based Other	11	1.2%	95.5%
Work-based	13	1.4%	96.9%
Non Home or Work-based	28	3.1%	100.0%
TOTAL	902	100.0%	100.0%
No Answer	4		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	418	46.1%	3.3
Carpool/vanpool	91	10.1%	3.8
Private-carrier bus	251	27.7%	4.1
MBTA Commuter rail	2	0.2%	2.0
MBTA Bus	13	1.4%	2.9
MBTA Subway	154	17.0%	3.4
MBTA Ferry	10	1.2%	3.9
Other	10	1.1%	3.9
TOTAL RIDERS	907		

Private carriers used	Riders
Plymouth & Brockton	146
Unspecified	101
Bonanza	1
	1

Other commuter rail stations used	Riders
Stoughton	2

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	319	35.2%	0.4
Carpool/vanpool	31	3.4%	0.4
Private-carrier bus	35	3.9%	0.5
MBTA Commuter rail	5	0.5%	0.5
MBTA Bus	6	0.7%	0.2
MBTA Subway	72	7.9%	0.4
MBTA Ferry	8	0.9%	0.2
Other	16	1.7%	0.2
TOTAL RIDERS	907		

Private carriers used	Riders
Unspecified	19
Plymouth & Brockton	15
Bonanza	1

Other commuter rail stations used	Riders
Unspecified	1

Note: Percent of riders may total to more than 100 percent due to multiple responses.

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Plymouth/Kingston** **Halifax Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	365	91.0%	91.0%
Home-based School	17	4.2%	95.3%
Home-based Shopping	2	0.5%	95.8%
Home-based Social Activity	2	0.5%	96.3%
Home-based Personal Business	6	1.5%	97.8%
Home-based Work-related	3	0.7%	98.5%
Home-based Other	3	0.7%	99.3%
Work-based	3	0.7%	100.0%
Non Home or Work-based	0	0.0%	100.0%
TOTAL	401	100.0%	100.0%
No Answer	3		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	197	48.8%	4.1
Carpool/vanpool	43	10.6%	4.5
Private-carrier bus	104	25.7%	4.4
MBTA Commuter rail	3	0.9%	5.0
MBTA Bus	5	1.4%	4.7
MBTA Subway	115	28.5%	4.3
MBTA Ferry	9	2.2%	5.0
Other	3	0.9%	5.0
TOTAL RIDERS	404		

Private carriers used	Riders
Plymouth & Brockton	68
Unspecified	32
School bus	1

Other commuter rail stations used	Riders
Mansfield	2
Stoughton	2

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	81	20.0%	0.4
Carpool/vanpool	4	1.0%	0.2
Private-carrier bus	15	3.8%	0.4
MBTA Commuter rail	1	0.4%	0.2
MBTA Bus	3	0.8%	0.2
MBTA Subway	45	11.1%	0.5
MBTA Ferry	3	0.8%	0.2
Other	5	1.4%	0.2
TOTAL RIDERS	404		

Private carriers used	Riders
Plymouth & Brockton	8
Unspecified	4
Interstate Coach	2

Other commuter rail stations used	Riders

Note: Percent of riders may total to more than 100 percent due to multiple responses.

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Plymouth/Kingston** **Hanson Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	366	87.1%	87.1%
Home-based School	24	5.7%	92.9%
Home-based Shopping	6	1.4%	94.3%
Home-based Social Activity	4	1.0%	95.2%
Home-based Personal Business	3	0.7%	96.0%
Home-based Work-related	7	1.7%	97.6%
Home-based Other	4	1.0%	98.6%
Work-based	6	1.4%	100.0%
Non Home or Work-based	0	0.0%	100.0%
TOTAL	420	100.0%	100.0%
No Answer	1		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	205	48.8%	3.9
Carpool/vanpool	28	6.7%	4.0
Private-carrier bus	66	15.8%	4.4
MBTA Commuter rail	2	0.5%	5.0
MBTA Bus	4	1.0%	4.5
MBTA Subway	132	31.4%	4.2
MBTA Ferry	10	2.5%	3.3
Other	1	0.4%	0.0
TOTAL RIDERS	420		

Private carriers used	Riders
Plymouth & Brockton	34
Unspecified	29
Interstate Coach	2
JBL Bus Lines	1

Other commuter rail stations used	Riders
Stoughton	2

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	98	23.5%	0.5
Carpool/vanpool	15	3.7%	0.7
Private-carrier bus	4	1.0%	0.2
MBTA Commuter rail	0	0.0%	
MBTA Bus	0	0.0%	
MBTA Subway	45	10.7%	0.5
MBTA Ferry	1	0.4%	0.2
Other	14	3.4%	0.2
TOTAL RIDERS	420		

Private carriers used	Riders
Plymouth & Brockton	2
Unspecified	1

Other commuter rail stations used	Riders

**Note: Percent of riders may total to more than 100 percent due to multiple responses.*

CTPS
11/30/99

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Plymouth/Kingston** **Whitman Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	382	89.9%	89.9%
Home-based School	15	3.5%	93.4%
Home-based Shopping	0	0.0%	93.4%
Home-based Social Activity	12	2.8%	96.2%
Home-based Personal Business	2	0.5%	96.7%
Home-based Work-related	0	0.0%	96.7%
Home-based Other	2	0.5%	97.2%
Work-based	7	1.6%	98.8%
Non Home or Work-based	5	1.2%	100.0%
TOTAL	425	100.0%	100.0%
No Answer	2		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	193	45.3%	4.3
Carpool/vanpool	32	7.7%	4.0
Private-carrier bus	47	11.0%	4.1
MBTA Commuter rail	1	0.4%	5.0
MBTA Bus	6	1.4%	3.0
MBTA Subway	183	42.9%	4.1
MBTA Ferry	8	2.0%	5.0
Other	4	1.1%	5.0
TOTAL RIDERS	427		

Private carriers used	Riders
Unspecified	22
Plymouth & Brockton	14
JBL Bus Lines	4
Interstate Coach	5

Other commuter rail stations used	Riders
Route 128	2

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	70	16.4%	0.6
Carpool/vanpool	18	4.4%	1.2
Private-carrier bus	1	0.4%	0.2
MBTA Commuter rail	1	0.4%	0.2
MBTA Bus	2	0.6%	0.2
MBTA Subway	64	15.0%	0.2
MBTA Ferry	4	1.1%	0.2
Other	13	3.0%	0.2
TOTAL RIDERS	427		

Private carriers used	Riders
Unspecified	1

Other commuter rail stations used	Riders

Note: Percent of riders may total to more than 100 percent due to multiple responses.

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Plymouth/Kingston** **Abington Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	487	89.7%	89.7%
Home-based School	42	7.7%	97.4%
Home-based Shopping	0	0.0%	97.4%
Home-based Social Activity	0	0.0%	97.4%
Home-based Personal Business	2	0.4%	97.8%
Home-based Work-related	1	0.2%	98.0%
Home-based Other	3	0.6%	98.5%
Work-based	5	0.9%	99.4%
Non Home or Work-based	3	0.6%	100.0%
TOTAL	543	100.0%	100.0%
No Answer	0		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	218	40.2%	4.5
Carpool/vanpool	33	6.2%	4.3
Private-carrier bus	94	17.4%	4.7
MBTA Commuter rail	5	0.9%	4.0
MBTA Bus	6	1.1%	5.0
MBTA Subway	221	40.8%	4.5
MBTA Ferry	11	2.1%	4.7
Other	2	0.5%	3.0
TOTAL RIDERS	543		

Private carriers used	Riders
Unspecified	46
Plymouth & Brockton	41
JBL Bus Lines	4
Interstate Coach	2

Other commuter rail stations used	Riders
Stoughton	3
Unspecified	3

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	109	20.1%	0.4
Carpool/vanpool	10	1.8%	0.2
Private-carrier bus	4	0.8%	5.0
MBTA Commuter rail	7	1.3%	0.8
MBTA Bus	2	0.4%	0.2
MBTA Subway	79	14.6%	0.3
MBTA Ferry	7	1.3%	0.2
Other	0	0.0%	
TOTAL RIDERS	543		

Private carriers used	Riders
Plymouth & Brockton	2
Unspecified	2

Other commuter rail stations used	Riders
Unspecified	5

Note: Percent of riders may total to more than 100 percent due to multiple responses.

CTPS
11/30/99

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Plymouth/Kingston** **South Weymouth Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	624	93.3%	93.3%
Home-based School	13	1.9%	95.2%
Home-based Shopping	0	0.0%	95.2%
Home-based Social Activity	6	0.9%	96.1%
Home-based Personal Business	5	0.7%	96.9%
Home-based Work-related	5	0.7%	97.6%
Home-based Other	0	0.0%	97.6%
Work-based	10	1.5%	99.1%
Non Home or Work-based	6	0.9%	100.0%
TOTAL	669	100.0%	100.0%
No Answer	5		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	214	31.8%	3.9
Carpool/vanpool	17	2.6%	2.2
Private-carrier bus	132	19.7%	4.2
MBTA Commuter rail	3	0.5%	5.0
MBTA Bus	12	1.7%	3.4
MBTA Subway	356	52.9%	4.1
MBTA Ferry	45	6.8%	3.5
Other	16	2.4%	4.6
TOTAL RIDERS	673		

Private carriers used	Riders
Plymouth & Brockton	45
JBL Bus Lines	43
Unspecified	43

Other commuter rail stations used	Riders
Hyde Park	3

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	168	25.0%	0.4
Carpool/vanpool	10	1.5%	0.5
Private-carrier bus	12	1.8%	2.3
MBTA Commuter rail	9	1.4%	0.7
MBTA Bus	0	0.0%	
MBTA Subway	109	16.2%	0.5
MBTA Ferry	27	4.0%	0.5
Other	12	1.8%	1.0
TOTAL RIDERS	673		

Private carriers used	Riders
Plymouth & Brockton	6
Unspecified	5

Other commuter rail stations used	Riders

Note: Percent of riders may total to more than 100 percent due to multiple responses.

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Plymouth/Kingston** **Braintree Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	79	87.8%	87.8%
Home-based School	4	4.4%	92.2%
Home-based Shopping	0	0.0%	92.2%
Home-based Social Activity	0	0.0%	92.2%
Home-based Personal Business	0	0.0%	92.2%
Home-based Work-related	7	7.8%	100.0%
Home-based Other	0	0.0%	100.0%
Work-based	0	0.0%	100.0%
Non Home or Work-based	0	0.0%	100.0%
TOTAL	90	100.0%	100.0%
No Answer	0		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	23	25.8%	4.3
Carpool/vanpool	10	11.3%	5.0
Private-carrier bus	0	0.0%	
MBTA Commuter rail	5	5.6%	5.0
MBTA Bus	5	5.6%	5.0
MBTA Subway	68	76.2%	4.6
MBTA Ferry	6	6.6%	5.0
Other	0	0.0%	
TOTAL RIDERS	89		

Private carriers used Riders

Other commuter rail stations used Riders

Route 128 5

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	12	13.4%	0.2
Carpool/vanpool	0	0.0%	
Private-carrier bus	0	0.0%	
MBTA Commuter rail	5	5.6%	0.2
MBTA Bus	5	5.6%	0.2
MBTA Subway	32	35.9%	0.5
MBTA Ferry	6	6.6%	4.0
Other	0	0.0%	
TOTAL RIDERS	89		

Private carriers used Riders

Other commuter rail stations used Riders

**Note: Percent of riders may total to more than 100 percent due to multiple responses.*

CTPS
11/30/99

Old Colony Commuter Rail

1998 Passenger Survey

Trip Purpose and Alternate Means

Line: **Plymouth/Kingston** **Quincy Center Station**

Expanded Results

Trip Purposes

	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	49	100.0%	100.0%
Home-based School	0	0.0%	100.0%
Home-based Shopping	0	0.0%	100.0%
Home-based Social Activity	0	0.0%	100.0%
Home-based Personal Business	0	0.0%	100.0%
Home-based Work-related	0	0.0%	100.0%
Home-based Other	0	0.0%	100.0%
Work-based	0	0.0%	100.0%
Non Home or Work-based	0	0.0%	100.0%
TOTAL	49	100.0%	100.0%
No Answer	0		

Alternate Means of Transportation Used before Old Colony

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	14	28.5%	3.7
Carpool/vanpool	3	7.1%	5.0
Private-carrier bus	0	0.0%	
MBTA Commuter rail	0	0.0%	
MBTA Bus	3	7.1%	5.0
MBTA Subway	35	71.4%	4.4
MBTA Ferry	7	14.2%	2.5
Other	0	0.0%	
TOTAL RIDERS	49		

Private carriers used Riders

Other commuter rail stations used Riders

Alternate Means of Transportation Still Used

	Number of Riders	Percent of Riders*	Avg. Days Used/Week
Drive alone	17	35.7%	0.2
Carpool/vanpool	0	0.0%	
Private-carrier bus	0	0.0%	
MBTA Commuter rail	0	0.0%	
MBTA Bus	3	7.1%	0.2
MBTA Subway	24	50.0%	0.2
MBTA Ferry	0	0.0%	
Other	0	0.0%	
TOTAL RIDERS	49		

Private carriers used Riders

Other commuter rail stations used Riders

**Note: Percent of riders may total to more than 100 percent due to multiple responses.*

5. Usage Rates by Fare Type

Information Contained

Each Usage Rates by Fare Type report consists of three tables on one page. The first table is Number of Days per Week Riders Use Old Colony Trains, and is based on survey question 9. It shows the number and percentage of riders in the selected group using Old Colony service each number of days per week, from less than one to seven. It also shows the cumulative percentages up to and including each number of days per week.

The second table in the report is Weekend Usage. It is based on question 10 and shows the numbers and percentages of riders in the selected group who rode Old Colony trains on Saturdays and Sundays. For each weekend day, the choices on the survey form for frequency of use were: Yes, regularly; Yes, occasionally; and No, not at all. The table includes the results for Saturdays and Sundays individually and for levels of Saturday use cross-tabulated with levels of Sunday use.

The third table in the report is Usage Rates by Fare Type. It shows the number and percentage of riders in the selected group who paid their Old Colony fares by each fare payment method listed in survey question 5. It also shows the average number of days per week that the riders using each fare payment method used Old Colony service. This is based on the responses to survey question 9.

Number of Days Per Week Riders Use Old Colony Trains

On both Old Colony branches, the majority of survey respondents indicated that they rode Old Colony trains five days per week. This was the response of 72.9% of Middleborough/Lakeville Line riders and of 73.5% of Plymouth/Kingston Line riders. These results were consistent with the preponderance of home-to-work trips on both branches, as most passengers making such trips would make them every weekday and would need to make their trips at about the same times each day.

At individual stations served only by Middleborough/Lakeville Line trains, five-days-per-week usage ranged from a minimum of 66.5% at Brockton Station to a maximum of 80.2% at Holbrook/Randolph. At individual stations served only by the Plymouth/Kingston Line trains excluding Plymouth, five-days-per-week usage ranged from a minimum of 62.0% at Kingston Station to a maximum of 83.6% at Halifax.

As a terminal station with good highway access and substantial parking capacity, Kingston attracts riders from longer distances than most other stations. The low five-day usage percentage at that station resulted from an unusually large number of

respondents riding less than one day a week (12.9%). These were mostly making non-work trips, with 40% originating in Plymouth and 33% in Cape Cod towns.

As detailed in other chapters of this report, Plymouth Station, which is served only in midday hours, has much different ridership characteristics than other Old Colony stations. The most common usage rate reported by riders boarding there was less than one day (40%) followed by three days (31.7%). Only 3.3% of Plymouth passengers rode Old Colony trains five days a week.

Because Braintree and Quincy Center are served by trains on both Old Colony branches, usage rate figures for these stations are most meaningful when examined for the two branches combined. At Braintree, 70.2% of all riders used Old Colony trains five days a week. This was slightly lower than the overall averages on each of the branches. In contrast, at Quincy Center an above-average 80.4% of riders used Old Colony trains five days a week. This was partly a consequence of a lower-than-average survey response rate and an absence of any responses from passengers riding less than three or more than five days.

The responses to Question 9 on number of days per week of Old Colony use do not, by themselves distinguish between weekday and weekend ridership, but such breakdowns can be estimated using the results of Question 10 on weekend ridership. The survey was conducted only on weekdays, so it did not include any responses from passengers who used service only on Saturdays or Sundays. As discussed in more detail below, the percentage of riders on either branch indicating that they used Old Colony service regularly on either Saturday or Sunday or both was small. Consequently, the percentages of riders using Old Colony service each number of days per week would change only slightly if weekend days were excluded.

Weekend Usage

Overall Results

About half of the weekday riders on each Old Colony Branch (47.5% on the Middleborough/Lakeville Line and 51.6% on the Plymouth/Kingston Line) reported that they did not ride Old Colony trains at all on weekends. At the opposite extreme, only 2.5% and 1.2% respectively used Old Colony service regularly on both Saturdays and Sundays.

At individual stations served only by Middleborough/Lakeville Line trains, the proportion of passengers not riding Old Colony trains at all on weekends ranged from a minimum of 38.2% at Campello to a maximum of 57.5% at Holbrook/Randolph. At the opposite extreme, the highest rate of use on both Saturdays and Sundays was 4.1% at Brockton and the lowest was 0.7% at Holbrook/Randolph.

At individual stations served only by Plymouth/Kingston Line trains, excluding Plymouth, the proportion of passengers not riding Old Colony trains at all on weekends

ranged from a minimum of 40.0% at Halifax to a maximum of 58.4% at Kingston. The latter figure was partly related to the high percentage of Kingston riders reporting use less than one day a week, as discussed above. At the opposite extreme, the highest rate of use on both Saturdays and Sundays was 2.4% at South Weymouth and the lowest was 0.0% at Hanson. At Plymouth Station, 41.6% did not use Old Colony trains at all on weekends and 7.6% rode on both Saturdays and Sundays. These figures are consistent with the predominance of non-work trips among Plymouth Station users. Although weekend riders were not surveyed, the majority of these would also be expected to be making non-work trips.

At Braintree Station for the two branches combined, 47.8% of the passengers did not ride at all on weekends and 3.5 % rode on both weekend days. At Quincy Center 51.1% did not ride at all on weekends and none rode on both weekend days.

Saturday Use

On the Middleborough/Lakeville Line, of passengers who answered the Saturday usage question, only 4.4% were regular Saturday riders, with 50.4% riding occasionally and 45.0% never on Saturdays. The highest rate of regular Saturday use was 7.2% at Brockton and the lowest was 3.1% at Holbrook/Randolph.

On the Plymouth/Kingston Line, 2.1% were regular Saturday riders, with 48.1% riding occasionally and 49.7% never on Saturdays. The highest rate of regular Saturday use was 3.5% at South Weymouth, excluding the unusually high 9.6% at Plymouth. The lowest was 1.0% at Hanson.

On the two lines combined, at Braintree Station 2.9% were regular Saturday riders, with 52.4% riding occasionally and 44.6% never on Saturdays. At Quincy Center there were no regular Saturday riders, but 48.6% rode occasionally and 51.3% never on Saturdays.

Sunday Use

Sunday usage by weekday Old Colony riders was even less common than Saturday usage. On the Middleborough/Lakeville Line, of passengers who answered the Sunday usage question, only 2.9% were regular Sunday riders, with 42.6% riding occasionally and 54.3% never on Sunday. The highest rate of regular Sunday use was 6.1% at Brockton and the lowest was 1.1% at Holbrook/Randolph.

On the Plymouth/Kingston Line 1.4% were regular Sunday riders, with 42.5% riding occasionally and 55.9% never on Sundays. The highest rate of regular Sunday use was 2.8% at South Weymouth, excluding the unusually high 7.5% at Plymouth. The lowest was 0.0% at Hanson.

On the two lines combined, at Braintree Station 4.3% were regular Sunday riders, with 47.8% riding occasionally and 47.8% never on Sundays. At Quincy Center there were no regular Sunday riders, but 40.7% rode occasionally and 59.2% never on Sundays.

Consistency With Other Information on Weekend Ridership

CTPS has not conducted any Saturday or Sunday passenger counts on the Old Colony Lines. The official ticket Audit report for September 1998 (which substantially overstates weekday ridership compared with CTPS counts taken at about the same time) indicates that during the sample week ridership on the Middleborough/Lakeville Line was about 20% as great on Saturday and 13% as great on Sunday as on Thursday. These figures are similar to what would be estimated by assuming that survey passengers indicating regular use on a weekend day rode on that day every week, and that those indicating occasional use on a weekend day rode an average of once every four weeks on that day.

On the Plymouth/Kingston Line, the Audit report indicates that during the September 1998 sample week ridership was about 25% as great on Saturday and 18% as great on Sunday as on Thursday. Both figures were 50% to 70% higher than would be accounted for by weekend usage reported in the survey. Overall, the results imply that on the Middleborough/Lakeville Line, most weekend riders were also weekday riders, but that on the Plymouth/Kingston Line a large percentage of weekend riders were not also weekday riders. This finding, if correct, could reflect a higher level of weekend social and recreational ridership among residents of the Plymouth/Kingston Line service area who do not have occasion to ride during the week.

Usage Rate by Fare Type

Adult Monthly Pass

On both Old Colony branches, the most common method of fare payment reported (58.7% on the Middleborough/Lakeville Line and 56.6% on the Plymouth/Kingston Line) was adult monthly passes. At individual stations served only by Middleborough/Lakeville Line trains, pass use ranged from a minimum of 50.7% at Middleborough/Lakeville Station to a maximum of 67.3% at Campello. At individual stations served only by the Plymouth/Kingston Line trains excluding Plymouth, pass use ranged from a minimum of 43.2% at Kingston Station to a maximum of 70.6% at Whitman. None of the riders boarding at Plymouth were pass users.

On the two lines combined, at Braintree Station 44.2% were pass users. At Quincy Center 73.8% were pass users.

Under the present fare structure, (which is the same as that in effect when the survey was conducted) a monthly pass provides the lowest average cost per ride for a passenger making 39 or more one-way trips per month, and who is not eligible for Senior Citizen, Disabled, Child, or Student half fares. For passengers transferring to or from other MBTA services, the number of trips for which a pass provides the lowest cost is even lower than 39.

In most months there are 21 or 22 non-holiday weekdays, so a passenger riding commuter rail in both directions on each such day would make 42 to 44 one-way trips. It might, therefore, be expected that the percentage of passengers reporting use of passes would be closer to the 73% reporting five day per week ridership than to the 57% to 59% that actually reported use of passes. As discussed below, several factors are responsible for the discrepancy.

Possible Reasons for Use of Fare Types Other Than Passes by Frequent Riders

About 3% of all 5-day-a-week riders were half-fare ticket users (Senior Citizen, Disabled, Child, or Student). For these riders, use of adult passes would have substantially increased the average cost per ride. (Half-fare 10-ride tickets are also available, but they are priced the same as 10 one-way half-fare tickets.) The survey asked how many days per week passengers used Old Colony trains, but not how many trips they made per week. CTPS counts usually show imbalances between inbound and outbound ridership, indicating that some passengers use Old Colony service in only one direction. Therefore, passengers who ride Old Colony trains on every weekday may still make fewer than the 39 one-way trips needed for break-even cost between a pass and a 12-ride ticket.

Some passengers reported that they alternated between use of two or more Old Colony stations at the outer trip end. Those alternating between stations in different zones would have needed to buy passes valid in the highest-zone stations used. In any such case, the break-even point between buying a different level 12-ride ticket for each station used and buying the pass needed for the higher zone station would have exceeded the usual 39 trips per month.

Some passengers who responded that they rode five days per week may have meant that they did so most weeks, but may have skipped enough trips in the course of a month to make 12-ride tickets more cost-effective than passes. Some riders may either have been unaware of the cost-advantage of passes, or have found the savings insufficient incentive to buy passes if they were unsure of their travel plans. In a month with 21 non-holiday weekdays (as was the case when the survey was conducted), the maximum pass cost saving for a passenger not riding on weekends or transferring to other MBTA services would have ranged from $6.00 in zone 1 to $12.00 in zone 8 compared with using 12-ride tickets.

The 1993 survey also found that the percentage of passengers using passes on each line then in operation was lower than the percentage reporting that they rode five days per week. The differences between the two figures for each line were smaller than those on the Old Colony Lines, however. At the time of the Old Colony survey, service on the two branches had been operating for slightly less than one year, and about one quarter of the riders surveyed had been using the service for less than six months. With less established travel habits than those of passengers surveyed in 1993, Old Colony riders as a group were apparently less willing to make the implied commitment of purchasing monthly passes.

On both Old Colony branches, passengers paying their fares with adult monthly passes had the highest average usage rates, at 4.9 days per week on both lines. The same average rate was found at all individual stations except Braintree, where it was 4.8 and at Bridgewater and Abington, where it was 5.0.

Ten- or Twelve-Ride Ticket

On both Old Colony branches, the second most common form of fare payment (21.9% on the Middleborough/Lakeville Line and 24.7% on the Plymouth/Kingston Line) was 10-ride or 12-ride tickets. The higher percentage on the Plymouth/Kingston Line was mainly a reflection of the lower monthly pass use rate on that line.

At individual stations served only by Middleborough/Lakeville Line trains, multiple-ride ticket use ranged from a minimum of 15.4% at Brockton Station to a maximum of 25.4% at Bridgewater and Middleborough/Lakeville. At individual stations served only by the Plymouth/Kingston Line trains excluding Plymouth, multiple-ride ticket use ranged from a minimum of 14.8% at Whitman to a maximum of 29.3% at Hanson. Only 12% of the riders boarding at Plymouth used multiple-ride tickets. (The same tickets would also have been valid at Kingston Station if passengers alternated between the two.)

On the two lines combined, at Braintree Station an unusually high 41.6% were multiple-ride ticket users. Most of these riders had trip origins at relatively long distances from Braintree, and did not ride often enough to make passes more cost-effective. At Quincy Center only 13.5% used multiple-ride tickets .

The survey form did not distinguish between 10-ride and 12-ride tickets. Twelve-ride tickets are valid for payment of adult full fares, and are priced the same as 10 full-fare single-ride tickets for the same zone. Ten-ride tickets are valid for payment of all fares for which half-fares apply (Senior Citizen, Disabled, Child, or Student) but they are priced the same as 10 half-fare single rides. Based on ticket sales reports, 10-ride tickets accounted for about 5% of the rides made on 10-ride and 12-ride tickets combined on all South Side commuter rail lines at the time of the Old Colony survey. With similar splits, the Middleborough/Lakeville Line would have had about 35 riders (1.1%) using 10-ride tickets, and the Plymouth/Kingston Line would have had about 45 (1.2%).

Presumably, any passengers aged 17 or under or aged 65 or over who reported use of 10- or 12-ride tickets would have used 10-ride tickets. The survey found only nine children or students and only four senior citizens reporting use of 10- or 12-ride tickets, however. Because of the lack of an additional discount, some users of 10-ride tickets may have checked off other half-fare categories on the survey form instead. Passengers with disabilities using 10-ride tickets would be indistinguishable by age from 12-ride ticket users and could account for some of the difference between expected use of 10-ride tickets and that accounted for by the lower and upper age groups.

As would be expected, passengers paying their fares with 10-ride or 12-ride tickets made fewer trips than those with adult monthly passes, averaging 4.3 days per week on both branches. This was also the same as the average usage for all fare types combined on both branches.

On the Middleborough/Lakeville Line travel by multiple-ride ticket users ranged from a minimum of 4.0 days per week at Middleborough/ Lakeville Station to a maximum of 4.7 at Brockton, with the latter rate being only slightly lower than the 4.9 days for pass users. As discussed in chapter 7, Brockton Station users had the lowest average household incomes on the line. This may have deterred some of them from making the advance payment of $94.00 for a monthly pass even if it would have given them a net cost saving over the course of a month.

On the Plymouth/Kingston Line excluding Plymouth, travel by multiple-ride ticket users ranged from a minimum of 4.2 days per week at South Weymouth Station to a maximum of 4.6 at Halifax and Abington. Multiple-ride ticket users boarding at Plymouth rode an average of only 3.0 days per week.

On both lines combined at Braintree Station multiple-ride ticket users rode an average of only 3.9 days per week. At Quincy Center, the average for such ticket users was 4.6 days.

Adult Cash Fare

Adult cash fares were a distant third most common method of fare payment on both Old Colony branches, at 13.9% on the Middleborough/Lakeville Line and 11.7% on the Plymouth/Kingston Line. (These figures include single-ride tickets purchased prior to boarding and tickets purchased on board trains.)

Use of adult cash fares varied widely among stations. On the Middleborough/ Lakeville Line use of such tickets was proportionally lowest at Campello (7.2%) and highest at Middleborough/Lakeville Station (19.1%). On the Plymouth/Kingston Line excluding Plymouth, use of adult cash fares was lowest at South Weymouth (7.9%) and highest at Kingston (16.1%). At Plymouth Station, because of the lack of peak-period service and the predominance of non-work trips, adult cash fares were the most common payment form, at 69.2%.

On both lines combined at Braintree Station adult cash fare users accounted for only 6.1% of all riders. At Quincy Center, no riders reported use of adult cash fares.

Usage rates for adult cash fares were among the lowest for any fare form. On the Middleborough/Lakeville Line the average was 2.6 days per week, ranging from 2.1 at Campello to 3.3 at Holbrook/Randolph. On the Plymouth/Kingston Line the average was 2.1 days per week, ranging from 1.6 at Kingston Station to 3.4 at Abington. Plymouth Station had a slightly higher rate than Kingston, at 1.9, but the rates at both

were weighted heavily by high numbers of passengers reporting travel less than one day per week. This included sightseers returning from visits to Plymouth.

At Braintree Station adult cash fare users averaged 3.0 days of Old Colony use per week. As noted above, there were no reported adult cash fare users at Quincy Center.

The relatively infrequent riding by adult cash-fare users is as would be expected, since adult single-ride tickets are the most costly form of fare payment. In addition to the basic fare, passengers purchasing tickets on board trains at locations where off-train sales are available are supposed to pay surcharges of $2.00 in peak hours or $1.00 in off-peak hours.

Senior Citizen/Disabled

The only other fare payment form reported by more than 3% of Old Colony riders was Senior Citizen or person with disabilities reduced fares. These were reported by 3.7% of riders on the Middleborough/Lakeville Line and 4.1% on the Plymouth/Kingston Line. As discussed above, this probably included some passengers using 10-ride half-fare tickets as well as passengers using single-ride half-fare tickets.

On the Middleborough/Lakeville Line passengers using Senior Citizen/Disabled fares ranged from a minimum of 0.9% at Bridgewater to a maximum of 8.8% at Brockton Station. On the Plymouth/Kingston Line excluding Plymouth, passengers using such fares ranged from a minimum of 1.1% at Halifax to a maximum of 7.9% at Kingston. At Plymouth Station 18.7% of the riders used such fares. More than half of these were senior citizens making recreational trips.

The fare payment question on the survey form did not distinguish between senior citizens and persons with disabilities. Only passengers over age 65 are supposed to be eligible for senior citizen fares, but there is no eligibility requirement other than age. Fares for persons with disabilities have no age limits, but certain documentation of medical condition is required for eligibility. Some passengers paying senior citizen fares would also meet disability standards, but they are not required to do so.

Based on the reported ages of passengers using this form of fare at stations served only by Middleborough/Lakeville Line trains 48.2% were senior citizens and 51.8% were people under age 65 with disabilities, but the split varied widely among stations. The proportion of senior citizens was highest at Bridgewater (100%) and lowest at Brockton (14.2%). In absolute terms, Middleborough had the most senior citizens (16) and Brockton had the most passengers under age 65 with disabilities (19).

Of passengers using this form of fare at stations served only by Plymouth/Kingston Line trains 76.2% were senior citizens and 23.8% were people under age 65 with disabilities. The proportion of senior citizens was highest at South Weymouth (85%) and lowest at Halifax (56.6%), excluding Plymouth, where it was slightly lower at

56.3%. In absolute terms, Kingston Station had both the most senior citizens (57) and the most passengers under age 65 with disabilities (15).

On the two lines combined, of passengers using this form of fare at Braintree Station 43.9% were senior citizens. At Quincy Center 70.4% were senior citizens.

Average usage rates in this fare category were among the lowest of any, at 2.2 days per week on the Middleborough/Lakeville Line and 2.1 days per week on the Plymouth/Kingston Line. At individual stations on the Middleborough/Lakeville Line, the range was from 1.4 days at Montello and Holbrook/Randolph to 4.2 at Bridgewater. At individual stations on the Plymouth/Kingston Line excluding Plymouth, the range was from 1.4 days at Kingston Station to 3.9 at Halifax. At Plymouth the average was only 0.3 days per week. On the two lines combined, of passengers using this form of fare at Braintree Station the average usage rate was 2.8 days per week. At Quincy Center the rate was 2.7.

The average use rates were affected both by the high proportions of retirees among the senior citizens, and by high proportions of non-work trips among passengers with disabilities. On the Middleborough/Lakeville Line 44% of the senior citizens and 18% of the passengers with disabilities were riding to or from work. On the Plymouth/Kingston Line the rates for these groups were 36% and 68%. This figures contrast with overall home-to-work trip rates of 82% among Middleborough/Lakeville Line riders and 86% among Plymouth/Kingston Line riders.

Student Pass, Child/Student Fares, and Other Fares

The final three fare categories, Student Pass, Child/Student Fares, and Other combined accounted for only 1.5% of fares on the Middleborough/Lakeville Line, ranging from 0.7% at Brockton to 3.0% at Bridgewater. On the Plymouth/Kingston Line excluding Plymouth such fares were used by 2.6% of all riders, ranging from 0.8% at Abington to 5.0% at Kingston Station. At Plymouth there were no riders in any of these three fare categories. On the two lines combined, at Braintree Station there were also no riders in any of these three fare categories. At Quincy Center Other fares were used by 2.5% of riders but there were no Student or Child fares reported.

Overall, Child and Student fares were probably under-represented in the survey results, as young children are unlikely to fill out forms and older children who do fill them out often do not take them seriously. Nevertheless, the impact of such under-representation on the overall results of the survey was probably small. Because of travel times and distances, relatively few young children travel to school by commuter rail, but the most heavily patronized trains in the survey ran in A.M. peak hours when few children would be making trips to anywhere other than school. Student reduced cash fares are only applicable for students up to high school. Of the passengers making home-to-school trips who appeared on the basis of age and destination to be college students, about 90% reported use of adult cash fares, adult monthly passes, or 12-ride tickets. About 4% reported that they used student passes, but they were probably referring to

adult monthly passes obtained through their schools. Most of the passengers reporting student pass use who would have been eligible for reduced fare passes were students at Archbishop Williams High School in Braintree or Boston College High School in Dorchester. (Archbishop Williams High provides a van connection from Braintree Station; B.C. High is within walking distance of JFK/UMass Station on the Red Line.)

"Other" alone was checked as the method of fare payment by 0.6% of the riders on the Middleborough/Lakeville Line and by 1.1% on the Plymouth/Kingston Line. The survey form provided a space to write in the form of fare meant by this. After re-classifying responses that actually referred to one of the other six choices, all passengers who checked Other and specified the method were using either MBTA or Amtrak employee passes. Based on the destinations shown, most of those that checked Other but did not give any specification were also MBTA or Amtrak employees.

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Middleborough/Lakeville** **All Stations**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	171	5.8%	5.8%
One Day	67	2.3%	8.1%
Two Days	83	2.8%	11.0%
Three Days	131	4.5%	15.4%
Four Days	254	8.7%	24.1%
Five Days	2,137	72.9%	97.0%
Six Days	66	2.3%	99.2%
Seven Days	22	0.8%	100.0%
TOTAL	2,931	100.0%	100.0%
No Answer	35		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	62 2.5%	31 1.2%	2 0.1%	32	127 4.4%
Occasionally	7 0.3%	986 39.3%	198 7.9%	250	1,441 50.4%
Not at all	0 0.0%	31 1.2%	1,193 47.5%	61	1,285 45.0%
No answer	7	44	0	57	
Sunday Total	76 2.9%	1,092 42.6%	1,393 54.3%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	412	13.9%	2.6
Adult monthly pass	1,737	58.7%	4.9
10- or 12-ride ticket	649	21.9%	4.3
Senior citizen/disabled	111	3.7%	2.2
Student pass	15	0.5%	5.0
Child/student	12	0.4%	4.5
Other	19	0.6%	4.2
All payment types	2,956	100.0%	4.3

CTPS

11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Middleborough/Lakeville** **Middleborough/Lakeville Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	70	10.1%	10.1%
One Day	16	2.3%	12.5%
Two Days	20	2.9%	15.4%
Three Days	40	5.8%	21.2%
Four Days	70	10.1%	31.3%
Five Days	466	67.5%	98.8%
Six Days	4	0.6%	99.4%
Seven Days	4	0.6%	100.0%
TOTAL	690	100.0%	100.0%
No Answer	6		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	16 2.7%	4 0.7%	0 0.0%	1	21 3.2%
Occasionally	1 0.2%	219 36.6%	51 8.5%	51	322 48.4%
Not at all	0 0.0%	11 1.8%	296 49.5%	14	321 48.2%
No answer	3	10	0	15	
Sunday Total	20 3.3%	244 39.9%	347 56.6%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	133	19.1%	2.4
Adult monthly pass	353	50.7%	4.9
10- or 12-ride ticket	176	25.4%	4.0
Senior citizen/disabled	24	3.5%	1.7
Student pass	2	0.4%	5.0
Child/student	0	0.0%	
Other	4	0.7%	3.7
All payment types	695	100.0%	4.1

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Middleborough/Lakeville** **Bridgewater Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	35	5.6%	5.6%
One Day	14	2.2%	7.8%
Two Days	31	5.0%	12.8%
Three Days	25	4.0%	16.8%
Four Days	59	9.4%	26.2%
Five Days	436	69.8%	96.0%
Six Days	22	3.5%	99.5%
Seven Days	3	0.5%	100.0%
TOTAL	625	100.0%	100.0%
No Answer	0		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	14 2.4%	16 2.8%	0 0.0%	1	31 5.1%
Occasionally	0 0.0%	231 39.9%	40 6.9%	33	304 49.2%
Not at all	0 0.0%	3 0.5%	275 47.5%	4	282 45.6%
No answer	2	1	0	1	
Sunday Total	16 2.7%	251 43.1%	315 54.0%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	102	16.4%	2.5
Adult monthly pass	337	53.9%	5.0
10- or 12-ride ticket	158	25.4%	4.3
Senior citizen/disabled	6	0.9%	4.2
Student pass	9	1.5%	5.0
Child/student	5	0.8%	4.0
Other	4	0.7%	3.2
All payment types	624	100.0%	4.4

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Middleborough/Lakeville** **Campello Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	15	3.6%	3.6%
One Day	9	2.2%	5.8%
Two Days	11	2.7%	8.4%
Three Days	17	4.1%	12.5%
Four Days	32	7.7%	20.2%
Five Days	323	77.8%	98.1%
Six Days	8	1.9%	100.0%
Seven Days	0	0.0%	100.0%
TOTAL	415	100.0%	100.0%
No Answer	4		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	11 3.4%	0 0.0%	0 0.0%	11	22 5.5%
Occasionally	1 0.3%	159 48.6%	23 7.0%	42	225 56.4%
Not at all	0 0.0%	7 2.1%	125 38.2%	19	151 37.9%
No answer	0	10	0	7	
Sunday Total	12 3.5%	176 52.4%	148 43.9%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	30	7.2%	2.1
Adult monthly pass	281	67.3%	4.9
10- or 12-ride ticket	77	18.6%	4.3
Senior citizen/disabled	23	5.5%	2.8
Student pass	0	0.0%	
Child/student	0	0.0%	
Other	5	1.2%	5.0
All payment types	418	100.0%	4.5

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Middleborough/Lakeville** **Brockton Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	25	10.3%	10.3%
One Day	6	2.5%	12.8%
Two Days	6	2.5%	15.3%
Three Days	11	4.5%	19.8%
Four Days	10	4.1%	24.0%
Five Days	161	66.5%	90.5%
Six Days	16	6.6%	97.1%
Seven Days	7	2.9%	100.0%
TOTAL	242	100.0%	100.0%
No Answer	5		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	8 4.1%	6 3.1%	0 0.0%	3	17 7.2%
Occasionally	2 1.0%	71 36.7%	23 11.9%	35	131 54.8%
Not at all	0 0.0%	5 2.6%	77 39.8%	8	90 37.8%
No answer	2	2	0	3	
Sunday Total	12 6.1%	84 42.8%	100 50.9%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	41	16.8%	2.3
Adult monthly pass	144	58.1%	4.9
10- or 12-ride ticket	38	15.4%	4.7
Senior citizen/disabled	22	8.8%	1.9
Student pass	0	0.0%	
Child/student	1	0.7%	5.0
Other	0	0.0%	
All payment types	249	100.0%	4.2

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12/8/99

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Middleborough/Lakeville** **Montello Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	15	4.3%	4.3%
One Day	11	3.1%	7.4%
Two Days	5	1.4%	8.9%
Three Days	11	3.1%	12.0%
Four Days	25	7.1%	19.1%
Five Days	272	77.7%	96.9%
Six Days	3	0.9%	97.7%
Seven Days	8	2.3%	100.0%
TOTAL	350	100.0%	100.0%
No Answer	5		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	10 3.6%	2 0.7%	0 0.0%	6	18 5.4%
Occasionally	0 0.0%	110 39.6%	31 11.2%	44	185 55.1%
Not at all	0 0.0%	3 1.1%	123 44.3%	6	132 39.3%
No answer	0	10	0	10	
Sunday Total	10 3.4%	125 43.2%	154 53.2%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	58	16.5%	3.2
Adult monthly pass	215	60.6%	4.9
10- or 12-ride ticket	68	19.2%	4.5
Senior citizen/disabled	7	2.1%	1.4
Student pass	0	0.0%	
Child/student	4	1.3%	5.0
Other	0	0.0%	
All payment types	355	100.0%	4.5

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Middleborough/Lakeville** **Holbrook/Randolph Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	11	2.2%	2.2%
One Day	10	2.0%	4.2%
Two Days	11	2.2%	6.5%
Three Days	10	2.0%	8.5%
Four Days	43	8.7%	17.1%
Five Days	398	80.2%	97.4%
Six Days	13	2.6%	100.0%
Seven Days	0	0.0%	100.0%
TOTAL	496	100.0%	100.0%
No Answer	8		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	3 0.7%	2 0.5%	2 0.5%	8	15 3.1%
Occasionally	2 0.5%	150 34.1%	23 5.2%	35	210 43.4%
Not at all	0 0.0%	2 0.5%	254 57.8%	2	258 53.4%
No answer	0	9	0	8	
Sunday Total	5 1.1%	163 36.5%	279 62.3%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	44	9.0%	3.3
Adult monthly pass	328	65.8%	4.9
10- or 12-ride ticket	104	21.0%	4.4
Senior citizen/disabled	13	2.7%	1.4
Student pass	2	0.5%	5.0
Child/student	0	0.0%	
Other	4	0.8%	5.0
All payment types	498	100.0%	4.6

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Plymouth/Kingston** **All Stations**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	222	6.2%	6.2%
One Day	65	1.8%	8.1%
Two Days	93	2.6%	10.7%
Three Days	216	6.1%	16.8%
Four Days	284	8.0%	24.8%
Five Days	2,612	73.5%	98.3%
Six Days	54	1.5%	99.8%
Seven Days	8	0.2%	100.0%
TOTAL	3,554	100.0%	100.0%
No Answer	24		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	38 1.2%	18 0.6%	2 0.1%	17	75 2.1%
Occasionally	3 0.1%	1,265 40.1%	167 5.3%	237	1,672 48.1%
Not at all	1 0.0%	29 0.9%	1,627 51.6%	71	1,728 49.7%
No answer	5	56	3	35	
Sunday Total	47 1.4%	1,368 42.5%	1,799 55.9%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	418	11.7%	2.1
Adult monthly pass	2,021	56.6%	4.9
10- or 12-ride ticket	884	24.7%	4.3
Senior citizen/disabled	146	4.1%	2.1
Student pass	35	0.9%	4.8
Child/student	22	0.6%	4.8
Other	41	1.1%	4.7
All payment types	3,570	100.0%	4.3

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Plymouth/Kingston** **Plymouth Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	24	40.0%	40.0%
One Day	5	8.3%	48.3%
Two Days	4	6.7%	55.0%
Three Days	19	31.7%	86.7%
Four Days	4	6.7%	93.3%
Five Days	2	3.3%	96.7%
Six Days	2	3.3%	100.0%
Seven Days	0	0.0%	100.0%
TOTAL	60	100.0%	100.0%
No Answer	3		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	4 7.6%	0 0.0%	0 0.0%	2	6 9.6%
Occasionally	0 0.0%	22 41.6%	5 9.4%	3	30 46.9%
Not at all	0 0.0%	0 0.0%	22 41.6%	5	27 43.3%
No answer	0	0	0	0	
Sunday Total	4 7.5%	22 41.5%	27 50.9%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	44	69.2%	1.9
Adult monthly pass	0	0.0%	
10- or 12-ride ticket	7	12.0%	3.0
Senior citizen/disabled	11	18.7%	0.3
Student pass	0	0.0%	
Child/student	0	0.0%	
Other	0	0.0%	
All payment types	63	100.0%	1.7

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Plymouth/Kingston** **Kingston/Route 3 Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	117	12.9%	12.9%
One Day	30	3.3%	16.2%
Two Days	35	3.9%	20.1%
Three Days	53	5.9%	26.0%
Four Days	96	10.6%	36.6%
Five Days	561	62.0%	98.6%
Six Days	13	1.4%	100.0%
Seven Days	0	0.0%	100.0%
TOTAL	905	100.0%	100.0%
No Answer	2		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	7 0.9%	3 0.4%	0 0.0%	2	12 1.3%
Occasionally	3 0.4%	273 34.1%	40 5.0%	54	370 41.9%
Not at all	0 0.0%	8 1.0%	468 58.4%	24	500 56.6%
No answer	1	16	0	7	
Sunday Total	11 1.3%	300 36.6%	508 62.0%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	146	16.1%	1.6
Adult monthly pass	391	43.2%	4.9
10- or 12-ride ticket	249	27.5%	4.3
Senior citizen/disabled	71	7.9%	1.4
Student pass	19	2.1%	4.6
Child/student	14	1.6%	4.7
Other	11	1.3%	4.6
All payment types	905	100.0%	3.9

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12/8/99

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Plymouth/Kingston** **Halifax Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	10	2.5%	2.5%
One Day	3	0.7%	3.2%
Two Days	9	2.2%	5.5%
Three Days	15	3.7%	9.2%
Four Days	24	6.0%	15.1%
Five Days	337	83.6%	98.8%
Six Days	5	1.2%	100.0%
Seven Days	0	0.0%	100.0%
TOTAL	403	100.0%	100.0%
No Answer	1		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	3 0.8%	3 0.8%	0 0.0%	1	7 2.0%
Occasionally	0 0.0%	183 51.6%	21 5.9%	25	229 59.1%
Not at all	0 0.0%	3 0.8%	142 40.0%	5	150 38.8%
No answer	1	11	1	3	
Sunday Total	4 1.1%	200 54.2%	164 44.5%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	33	8.3%	2.4
Adult monthly pass	252	62.6%	4.9
10- or 12-ride ticket	101	25.1%	4.6
Senior citizen/disabled	4	1.1%	3.9
Student pass	1	0.3%	6.0
Child/student	4	1.0%	5.0
Other	5	1.3%	4.8
All payment types	403	100.0%	4.6

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12/8/99

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Plymouth/Kingston** **Hanson Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	18	4.3%	4.3%
One Day	4	1.0%	5.3%
Two Days	13	3.1%	8.4%
Three Days	29	6.9%	15.3%
Four Days	27	6.4%	21.7%
Five Days	321	76.6%	98.3%
Six Days	7	1.7%	100.0%
Seven Days	0	0.0%	100.0%
TOTAL	419	100.0%	100.0%
No Answer	1		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	0 0.0%	0 0.0%	0 0.0%	4	4 1.0%
Occasionally	0 0.0%	173 46.3%	16 4.3%	22	211 51.7%
Not at all	0 0.0%	6 1.6%	178 47.7%	8	192 47.2%
No answer	0	4	2	5	
Sunday Total	0 0.0%	183 48.2%	196 51.7%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	45	10.7%	2.5
Adult monthly pass	227	54.0%	4.9
10- or 12-ride ticket	123	29.3%	4.4
Senior citizen/disabled	12	2.9%	3.2
Student pass	9	2.1%	5.0
Child/student	3	0.8%	5.0
Other	0	0.0%	
All payment types	420	100.0%	4.5

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12/8/99

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Plymouth/Kingston** **Whitman Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	13	3.1%	3.1%
One Day	0	0.0%	3.1%
Two Days	15	3.6%	6.7%
Three Days	16	3.8%	10.5%
Four Days	25	6.0%	16.4%
Five Days	342	81.4%	97.9%
Six Days	8	1.9%	99.8%
Seven Days	1	0.2%	100.0%
TOTAL	420	100.0%	100.0%
No Answer	7		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	4 1.1%	4 1.1%	2 0.5%	0	10 2.3%
Occasionally	0 0.0%	177 48.2%	27 7.3%	45	249 58.9%
Not at all	1 0.3%	0 0.0%	153 41.6%	9	163 38.7%
No answer	0	2	0	2	
Sunday Total	5 1.3%	183 49.5%	182 49.1%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	38	9.2%	2.3
Adult monthly pass	297	70.6%	4.9
10- or 12-ride ticket	62	14.8%	4.5
Senior citizen/disabled	10	2.4%	2.8
Student pass	5	1.3%	5.0
Child/student	0	0.0%	
Other	6	1.4%	5.0
All payment types	421	100.0%	4.5

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Plymouth/Kingston** **Abington Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	6	1.1%	1.1%
One Day	7	1.3%	2.4%
Two Days	8	1.5%	3.9%
Three Days	24	4.4%	8.3%
Four Days	38	7.0%	15.3%
Five Days	443	81.6%	96.9%
Six Days	12	2.2%	99.1%
Seven Days	5	0.9%	100.0%
TOTAL	543	100.0%	100.0%
No Answer	1		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	3 0.7%	3 0.7%	0 0.0%	4	10 2.0%
Occasionally	0 0.0%	181 39.3%	20 4.3%	40	241 46.4%
Not at all	0 0.0%	7 1.5%	248 53.8%	12	267 51.4%
No answer	0	22	0	2	
Sunday Total	3 0.6%	213 44.0%	268 55.3%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	49	9.1%	3.4
Adult monthly pass	375	69.1%	5.0
10- or 12-ride ticket	103	19.1%	4.6
Senior citizen/disabled	9	1.6%	3.7
Student pass	0	0.0%	
Child/student	0	0.0%	
Other	4	0.8%	4.0
All payment types	543	100.0%	4.7

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Plymouth/Kingston** **South Weymouth Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	31	4.6%	4.6%
One Day	9	1.3%	6.0%
Two Days	4	0.6%	6.6%
Three Days	54	8.1%	14.7%
Four Days	62	9.3%	24.0%
Five Days	496	74.4%	98.4%
Six Days	8	1.2%	99.6%
Seven Days	3	0.4%	100.0%
TOTAL	667	100.0%	100.0%
No Answer	5		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	15 2.4%	6 1.0%	0 0.0%	2	23 3.5%
Occasionally	0 0.0%	211 34.0%	33 5.3%	37	281 42.5%
Not at all	0 0.0%	5 0.8%	351 56.5%	0	356 53.8%
No answer	2	0	0	8	
Sunday Total	17 2.8%	222 35.5%	384 61.5%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	53	7.9%	2.1
Adult monthly pass	399	59.3%	4.9
10- or 12-ride ticket	193	28.7%	4.2
Senior citizen/disabled	17	2.6%	3.3
Student pass	0	0.0%	
Child/student	0	0.0%	
Other	9	1.4%	5.0
All payment types	673	100.0%	4.4

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12/8/99

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Both Old Colony Lines** **Braintree Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	4	3.5%	3.5%
One Day	6	5.3%	8.8%
Two Days	5	4.4%	13.2%
Three Days	15	13.2%	26.3%
Four Days	4	3.5%	29.8%
Five Days	80	70.2%	100.0%
Six Days	0	0.0%	100.0%
Seven Days	0	0.0%	100.0%
TOTAL	114	100.0%	100.0%
No Answer	0		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	3 3.5%	0 0.0%	0 0.0%	0	3 2.9%
Occasionally	0 0.0%	41 47.8%	0 0.0%	13	54 52.4%
Not at all	0 0.0%	0 0.0%	41 47.8%	5	46 44.6%
No answer	0	0	0	10	
Sunday Total	3 3.5%	41 48.2%	41 48.2%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	7	6.1%	3.0
Adult monthly pass	50	44.2%	4.8
10- or 12-ride ticket	47	41.6%	3.9
Senior citizen/disabled	9	7.9%	2.8
Student pass	0	0.0%	
Child/student	0	0.0%	
Other	0	0.0%	
All payment types	113	100.0%	4.2

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1/4/00

Old Colony Commuter Rail

1998 Passenger Survey

Usage Rates by Fare Type

Line: **Both Old Colony Lines** **Quincy Center Station**

Expanded Results

Number of Days per Week Riders Use Old Colony Trains:

	Number of Riders	Percent of Riders	Cumulative Percentage
Less Than One	0	0.0%	0.0%
One Day	0	0.0%	0.0%
Two Days	0	0.0%	0.0%
Three Days	9	6.5%	6.5%
Four Days	18	13.0%	19.6%
Five Days	111	80.4%	100.0%
Six Days	0	0.0%	100.0%
Seven Days	0	0.0%	100.0%
TOTAL	138	100.0%	100.0%
No Answer	4		

Weekend Usage

SATURDAY USAGE	SUNDAY USAGE: Regularly	Occasionally	Not At All	No Answer	Saturday Total
Regularly	0 0.0%	0 0.0%	0 0.0%	0	0 0.0%
Occasionally	0 0.0%	53 41.1%	11 8.5%	4	68 48.6%
Not at all	0 0.0%	0 0.0%	66 51.1%	5	71 51.3%
No answer	0	0	0	4	
Sunday Total	0 0.0%	53 40.7%	77 59.2%		

Usage Rates by Fare Type

Fare Payment Type	Number of Riders	Percent of Riders	Number of Days Used per Week
Adult cash fare	0	0.0%	
Adult monthly pass	103	73.8%	4.9
10- or 12-ride ticket	18	13.5%	4.6
Senior citizen/disabled	14	10.0%	2.7
Student pass	0	0.0%	
Child/student	0	0.0%	
Other	3	2.5%	5.0
All payment types	139	100.0%	4.6

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1/4/00

6. Automobile Availability Data

Information Contained

Each Automobile Availability Data report consists of four tables on one page. The first table is Licensed Drivers. It shows the number and percentage of riders in the selected group who did and did not have drivers licenses, based on survey question 16. The second table in the report is Riders with Automobiles Available for Trip. It shows the number and percentage of riders in the selected group who did and did not have vehicles available for the same trip on the survey day, based on survey question 18.

The third table in the report is Vehicles owned per household. It shows the number and percentage of riders in the selected group who indicated that their households owned each number of cars or trucks from none to five or more based on survey question 17.

The fourth table in the report is vehicles owned per capita. It shows the number and percentage of riders from households in various per capita vehicle ownership ranges between none and two or more. This table is based on a cross-tabulation of the results of survey questions 17 (vehicle ownership per household) and 15 (household size).

On both Old Colony branches, the vast majority of riders were not transit dependent, based on auto availability data. In part, this result was related to the heavy reliance on park-and-ride as the mode of station access, since passengers using this mode necessarily had cars. The survey results do not answer the question as to whether significant numbers of additional riders without cars could be attracted to Old Colony service if more convenient means of station access were available.

Licensed Drivers

Almost all of the survey respondents on both Old Colony branches (95.0% on the Middleborough/Lakeville Line and 96.3% on the Plymouth/Kingston Line) were licensed drivers. The lowest percentages of unlicensed riders at individual stations on the two branches respectively were 86.4% at Brockton and 95.7% at Hanson. (At Plymouth Station only 71.9% were licensed drivers, but that station had only off-peak service, with many of the riders starting return halves of round trips.)

The lack of a license was most closely related to the age of the respondent. On the Middleborough/Lakeville Line, 32% of those without licenses were under age 25, including 16% under age 18, compared with only 11.8% in the two lowest age groups as a whole and only 1.1% under age 18. On the Plymouth/Kingston Line 55.7% of the passengers without licenses were under age 25, including 46% under age 18, compared with only 8.7% overall under age 25 and only 1.8% under age 18.

These results indicate that many of those without licenses did not have them only because they were under age. Others who were old enough to drive may have deferred getting licenses because of the high cost of auto ownership, including insurance rates for drivers under age 25. The much higher percentages of licensed drivers among respondents over age 25 suggests that most of those under age 25 will eventually also get licenses.

Riders with Automobiles Available for Trip

The majority of riders on both branches (84.4% on the Middleborough/Lakeville Line and 92.1% on the Plymouth/Kingston Line) reported that they had a car or truck available for the trips that they were making when surveyed. Some passengers without licenses nevertheless reported that they had vehicles available, presumably meaning that someone else could have driven them, but 99% of those with vehicles available also had licenses. The lowest vehicle availability rate at an individual station on the Middleborough/Lakeville Line was 60.3% at Brockton, with rates of 80% or more at all other stations. On the Plymouth/Kingston Line, vehicle availability rates exceeded 91% at all stations except Plymouth, where the unusual service and trips purpose patterns contributed to a rate of only 51.6%.

The lower ratio of passengers with vehicles available to passengers with drivers licenses on the Middleborough/Lakeville Line was consistent with the lower average incomes of passengers on that line compared with the Plymouth/Kingston Line.

Vehicles Owned Per Household

On both Old Colony branches, the most common number of vehicles owned per household was two, with 49.1% of the riders on the Middleborough/Lakeville Line and 59.4% on the Plymouth/Kingston Line reporting that number. The proportions of riders with numbers of vehicles in each category above two were similar on both lines, accounting for a combined 23.1% and 23.8% respectively. The Middleborough/ Lakeville Line had higher proportions of riders from no-vehicle households (4.8% versus 1.4%) and one-vehicle households (23.1% versus 15.4%).

The highest percentages of riders from no-vehicle households on each branch were reported at Brockton (16.7%), and Plymouth (31.7%) but no Plymouth/Kingston Line station with all-day service had a no-vehicle rate above 1.8%.

Vehicles Owned Per Capita

Differences in numbers of vehicles per household could be partly a reflection of differences in household size, but for the two Old Colony branches average household sizes were almost exactly the same (3.00 versus 3.01). Because the Plymouth/Kingston Line had higher average auto ownership per household, it also had higher auto ownership per capita. The most common range of vehicles per capita on that branch was 1.0 to 1.49, reported by 45.2%, compared with only 37.8% on the Middleborough/

Lakeville Line. Percentages in the 0.5 to 0.99 vehicles per capita range were much closer, at 39.2% and 38.7%. The Middleborough/Lakeville Line had higher percentages in the no vehicles per capita category (4.9% versus 1.5%) and in the less than 0.5 vehicles category (13.8% versus 10.1%).

The question on average household size did not differentiate between children and adults, so it was not possible to calculate ratios of vehicles owned to persons of driving age.

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Middleborough/Lakeville** **All Stations**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	2,777	95.0%
Not Licensed	145	5.0%
TOTAL	2,922	100.0%
No Answer	43	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	2,455	84.4%
No Auto Available	454	15.6%
TOTAL	2,909	100.0%
No Answer	55	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	139	4.8%	4.8%
One Vehicle	672	23.1%	27.8%
Two Vehicles	1,431	49.1%	76.9%
Three Vehicles	445	15.3%	92.2%
Four Vehicles	169	5.8%	98.0%
Five or More Vehicles	58	2.0%	100.0%
TOTAL	2,914	100.0%	100.0%
No Answer	49		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	139	4.9%	4.9%
Less than 0.5 Vehicles	391	13.8%	18.7%
0.5 to 0.99 Vehicles	1,098	38.7%	57.4%
1.0 to 1.49 Vehicles	1,073	37.8%	95.2%
1.5 to 1.99 Vehicles	89	3.1%	98.3%
2.0 or More Vehicles	47	1.7%	100.0%
TOTAL	2,837	100.0%	100.0%
No Answer	128		
Mean Household Size	3.00		

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Middleborough/Lakeville** **Middleborough/Lakeville Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	671	97.2%
Not Licensed	19	2.8%
TOTAL	690	100.0%
No Answer	5	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	635	92.2%
No Auto Available	54	7.8%
TOTAL	689	100.0%
No Answer	6	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	14	2.0%	2.0%
One Vehicle	121	17.6%	19.6%
Two Vehicles	381	55.4%	75.0%
Three Vehicles	124	18.0%	93.0%
Four Vehicles	37	5.4%	98.4%
Five or More Vehicles	11	1.6%	100.0%
TOTAL	688	100.0%	100.0%
No Answer	6		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	14	2.1%	2.1%
Less than 0.5 Vehicles	67	10.0%	12.1%
0.5 to 0.99 Vehicles	270	40.2%	52.2%
1.0 to 1.49 Vehicles	275	40.9%	93.2%
1.5 to 1.99 Vehicles	28	4.2%	97.3%
2.0 or More Vehicles	18	2.7%	100.0%
TOTAL	672	100.0%	100.0%
No Answer	23		

Mean Household Size 2.92

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Middleborough/Lakeville** **Bridgewater Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	589	94.2%
Not Licensed	36	5.8%
TOTAL	625	100.0%
No Answer	0	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	505	82.0%
No Auto Available	111	18.0%
TOTAL	616	100.0%
No Answer	8	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	19	3.1%	3.1%
One Vehicle	105	17.0%	20.0%
Two Vehicles	305	49.3%	69.3%
Three Vehicles	125	20.2%	89.5%
Four Vehicles	50	8.1%	97.6%
Five or More Vehicles	15	2.4%	100.0%
TOTAL	619	100.0%	100.0%
No Answer	5		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	19	3.1%	3.1%
Less than 0.5 Vehicles	61	9.9%	13.0%
0.5 to 0.99 Vehicles	249	40.5%	53.5%
1.0 to 1.49 Vehicles	257	41.8%	95.3%
1.5 to 1.99 Vehicles	18	2.9%	98.2%
2.0 or More Vehicles	11	1.8%	100.0%
TOTAL	615	100.0%	100.0%
No Answer	10		
Mean Household Size	3.08		

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Middleborough/Lakeville** **Campello Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	388	94.9%
Not Licensed	21	5.1%
TOTAL	409	100.0%
No Answer	9	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	352	86.3%
No Auto Available	56	13.7%
TOTAL	408	100.0%
No Answer	9	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	31	7.6%	7.6%
One Vehicle	75	18.4%	26.0%
Two Vehicles	196	48.2%	74.2%
Three Vehicles	58	14.3%	88.5%
Four Vehicles	36	8.8%	97.3%
Five or More Vehicles	11	2.7%	100.0%
TOTAL	407	100.0%	100.0%
No Answer	9		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	31	7.9%	7.9%
Less than 0.5 Vehicles	54	13.7%	21.6%
0.5 to 0.99 Vehicles	115	29.2%	50.8%
1.0 to 1.49 Vehicles	176	44.7%	95.4%
1.5 to 1.99 Vehicles	10	2.5%	98.0%
2.0 or More Vehicles	8	2.0%	100.0%
TOTAL	394	100.0%	100.0%
No Answer	23		
Mean Household Size	2.95		

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Middleborough/Lakeville** **Brockton Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	209	86.4%
Not Licensed	33	13.6%
TOTAL	242	100.0%
No Answer	7	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	149	60.3%
No Auto Available	98	39.7%
TOTAL	247	100.0%
No Answer	1	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	41	16.7%	16.7%
One Vehicle	76	30.9%	47.6%
Two Vehicles	103	41.9%	89.4%
Three Vehicles	13	5.3%	94.7%
Four Vehicles	9	3.7%	98.4%
Five or More Vehicles	4	1.6%	100.0%
TOTAL	246	100.0%	100.0%
No Answer	3		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	41	17.6%	17.6%
Less than 0.5 Vehicles	58	24.9%	42.5%
0.5 to 0.99 Vehicles	85	36.5%	79.0%
1.0 to 1.49 Vehicles	49	21.0%	100.0%
1.5 to 1.99 Vehicles	0	0.0%	100.0%
2.0 or More Vehicles	0	0.0%	100.0%
TOTAL	233	100.0%	100.0%
No Answer	15		
Mean Household Size	3.11		

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Middleborough/Lakeville** **Montello Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	330	93.8%
Not Licensed	22	6.3%
TOTAL	352	100.0%
No Answer	3	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	282	80.8%
No Auto Available	67	19.2%
TOTAL	349	100.0%
No Answer	7	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	18	5.2%	5.2%
One Vehicle	120	34.6%	39.8%
Two Vehicles	160	46.1%	85.9%
Three Vehicles	40	11.5%	97.4%
Four Vehicles	9	2.6%	100.0%
Five or More Vehicles	0	0.0%	100.0%
TOTAL	347	100.0%	100.0%
No Answer	8		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	18	5.3%	5.3%
Less than 0.5 Vehicles	77	22.7%	28.0%
0.5 to 0.99 Vehicles	138	40.7%	68.7%
1.0 to 1.49 Vehicles	96	28.3%	97.1%
1.5 to 1.99 Vehicles	6	1.8%	98.8%
2.0 or More Vehicles	4	1.2%	100.0%
TOTAL	339	100.0%	100.0%
No Answer	17		

Mean Household Size 3.08

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Middleborough/Lakeville** **Holbrook/Randolph Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	476	97.1%
Not Licensed	14	2.9%
TOTAL	490	100.0%
No Answer	13	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	436	89.0%
No Auto Available	54	11.0%
TOTAL	490	100.0%
No Answer	13	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	12	2.4%	2.4%
One Vehicle	135	27.4%	29.9%
Two Vehicles	242	49.2%	79.1%
Three Vehicles	66	13.4%	92.5%
Four Vehicles	24	4.9%	97.4%
Five or More Vehicles	13	2.6%	100.0%
TOTAL	492	100.0%	100.0%
No Answer	11		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	12	2.5%	2.5%
Less than 0.5 Vehicles	67	14.1%	16.7%
0.5 to 0.99 Vehicles	184	38.8%	55.5%
1.0 to 1.49 Vehicles	181	38.2%	93.7%
1.5 to 1.99 Vehicles	23	4.9%	98.5%
2.0 or More Vehicles	7	1.5%	100.0%
TOTAL	474	100.0%	100.0%
No Answer	28		

Mean Household Size 2.95

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Middleborough/Lakeville** **Braintree Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	24	100.0%
Not Licensed	0	0.0%
TOTAL	24	100.0%
No Answer	0	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	20	83.3%
No Auto Available	4	16.7%
TOTAL	24	100.0%
No Answer	0	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	0	0.0%	0.0%
One Vehicle	0	0.0%	0.0%
Two Vehicles	20	83.3%	83.3%
Three Vehicles	4	16.7%	100.0%
Four Vehicles	0	0.0%	100.0%
Five or More Vehicles	0	0.0%	100.0%
TOTAL	24	100.0%	100.0%
No Answer	0		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	0	0.0%	0.0%
Less than 0.5 Vehicles	4	16.7%	16.7%
0.5 to 0.99 Vehicles	16	66.7%	83.3%
1.0 to 1.49 Vehicles	4	16.7%	100.0%
1.5 to 1.99 Vehicles	0	0.0%	100.0%
2.0 or More Vehicles	0	0.0%	100.0%
TOTAL	24	100.0%	100.0%
No Answer	0		

Mean Household Size 3.83

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Middleborough/Lakeville** **Quincy Center Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	90	100.0%
Not Licensed	0	0.0%
TOTAL	90	100.0%
No Answer	4	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	75	87.2%
No Auto Available	11	12.8%
TOTAL	86	100.0%
No Answer	8	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	4	4.4%	4.4%
One Vehicle	40	44.0%	48.4%
Two Vehicles	24	26.4%	74.7%
Three Vehicles	15	16.5%	91.2%
Four Vehicles	4	4.4%	95.6%
Five or More Vehicles	4	4.4%	100.0%
TOTAL	91	100.0%	100.0%
No Answer	4		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	4	4.6%	4.6%
Less than 0.5 Vehicles	4	4.6%	9.2%
0.5 to 0.99 Vehicles	40	46.0%	55.2%
1.0 to 1.49 Vehicles	35	40.2%	95.4%
1.5 to 1.99 Vehicles	4	4.6%	100.0%
2.0 or More Vehicles	0	0.0%	100.0%
TOTAL	87	100.0%	100.0%
No Answer	8		

Mean Household Size 2.54

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Plymouth/Kingston** **All Stations**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	3,420	96.3%
Not Licensed	132	3.7%
TOTAL	3,552	100.0%
No Answer	27	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	3,253	92.1%
No Auto Available	278	7.9%
TOTAL	3,531	100.0%
No Answer	48	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	51	1.4%	1.4%
One Vehicle	543	15.4%	16.9%
Two Vehicles	2,093	59.4%	76.2%
Three Vehicles	599	17.0%	93.2%
Four Vehicles	161	4.6%	97.8%
Five or More Vehicles	78	2.2%	100.0%
TOTAL	3,525	100.0%	100.0%
No Answer	54		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	51	1.5%	1.5%
Less than 0.5 Vehicles	349	10.1%	11.6%
0.5 to 0.99 Vehicles	1,354	39.2%	50.8%
1.0 to 1.49 Vehicles	1,561	45.2%	95.9%
1.5 to 1.99 Vehicles	90	2.6%	98.5%
2.0 or More Vehicles	51	1.5%	100.0%
TOTAL	3,456	100.0%	100.0%
No Answer	123		

Mean Household Size	3.01

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Plymouth/Kingston** **Plymouth Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	46	71.9%
Not Licensed	18	28.1%
TOTAL	64	100.0%
No Answer	0	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	33	51.6%
No Auto Available	31	48.4%
TOTAL	64	100.0%
No Answer	0	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	20	31.7%	31.7%
One Vehicle	4	6.3%	38.1%
Two Vehicles	33	52.4%	90.5%
Three Vehicles	6	9.5%	100.0%
Four Vehicles	0	0.0%	100.0%
Five or More Vehicles	0	0.0%	100.0%
TOTAL	63	100.0%	100.0%
No Answer	0		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	20	31.7%	31.7%
Less than 0.5 Vehicles	3	4.8%	36.5%
0.5 to 0.99 Vehicles	16	25.4%	61.9%
1.0 to 1.49 Vehicles	24	38.1%	100.0%
1.5 to 1.99 Vehicles	0	0.0%	100.0%
2.0 or More Vehicles	0	0.0%	100.0%
TOTAL	63	100.0%	100.0%
No Answer	0		

Mean Household Size 2.77

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Plymouth/Kingston** **Kingston/Route 3 Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	867	96.0%
Not Licensed	36	4.0%
TOTAL	903	100.0%
No Answer	3	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	840	93.3%
No Auto Available	60	6.7%
TOTAL	900	100.0%
No Answer	6	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	5	0.6%	0.6%
One Vehicle	185	20.5%	21.1%
Two Vehicles	499	55.3%	76.4%
Three Vehicles	162	18.0%	94.3%
Four Vehicles	35	3.9%	98.2%
Five or More Vehicles	16	1.8%	100.0%
TOTAL	902	100.0%	100.0%
No Answer	6		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	5	0.6%	0.6%
Less than 0.5 Vehicles	86	9.8%	10.4%
0.5 to 0.99 Vehicles	313	35.6%	46.0%
1.0 to 1.49 Vehicles	440	50.1%	96.0%
1.5 to 1.99 Vehicles	22	2.5%	98.5%
2.0 or More Vehicles	13	1.5%	100.0%
TOTAL	879	100.0%	100.0%
No Answer	28		

Mean Household Size	2.86

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Plymouth/Kingston** **Halifax Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	384	97.0%
Not Licensed	12	3.0%
TOTAL	396	100.0%
No Answer	8	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	375	94.0%
No Auto Available	24	6.0%
TOTAL	399	100.0%
No Answer	5	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	1	0.3%	0.3%
One Vehicle	45	11.3%	11.6%
Two Vehicles	230	57.9%	69.5%
Three Vehicles	91	22.9%	92.4%
Four Vehicles	16	4.0%	96.5%
Five or More Vehicles	14	3.5%	100.0%
TOTAL	397	100.0%	100.0%
No Answer	7		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	1	0.3%	0.3%
Less than 0.5 Vehicles	27	6.9%	7.2%
0.5 to 0.99 Vehicles	173	44.2%	51.4%
1.0 to 1.49 Vehicles	169	43.2%	94.6%
1.5 to 1.99 Vehicles	16	4.1%	98.7%
2.0 or More Vehicles	5	1.3%	100.0%
TOTAL	391	100.0%	100.0%
No Answer	14		
Mean Household Size	3.08		

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Plymouth/Kingston** **Hanson Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	400	95.7%
Not Licensed	18	4.3%
TOTAL	418	100.0%
No Answer	3	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	384	92.3%
No Auto Available	32	7.7%
TOTAL	416	100.0%
No Answer	4	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	0	0.0%	0.0%
One Vehicle	53	12.8%	12.8%
Two Vehicles	244	59.1%	71.9%
Three Vehicles	81	19.6%	91.5%
Four Vehicles	25	6.1%	97.6%
Five or More Vehicles	10	2.4%	100.0%
TOTAL	413	100.0%	100.0%
No Answer	8		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	0	0.0%	0.0%
Less than 0.5 Vehicles	61	15.2%	15.2%
0.5 to 0.99 Vehicles	140	34.8%	50.0%
1.0 to 1.49 Vehicles	184	45.8%	95.8%
1.5 to 1.99 Vehicles	11	2.7%	98.5%
2.0 or More Vehicles	6	1.5%	100.0%
TOTAL	402	100.0%	100.0%
No Answer	18		

Mean Household Size	3.18

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Plymouth/Kingston** **Whitman Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	412	96.9%
Not Licensed	13	3.1%
TOTAL	425	100.0%
No Answer	2	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	384	91.6%
No Auto Available	35	8.4%
TOTAL	419	100.0%
No Answer	8	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	4	1.0%	1.0%
One Vehicle	53	12.6%	13.5%
Two Vehicles	266	63.2%	76.7%
Three Vehicles	60	14.3%	91.0%
Four Vehicles	27	6.4%	97.4%
Five or More Vehicles	11	2.6%	100.0%
TOTAL	421	100.0%	100.0%
No Answer	8		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	4	1.0%	1.0%
Less than 0.5 Vehicles	56	13.5%	14.5%
0.5 to 0.99 Vehicles	167	40.3%	54.8%
1.0 to 1.49 Vehicles	177	42.8%	97.6%
1.5 to 1.99 Vehicles	10	2.4%	100.0%
2.0 or More Vehicles	0	0.0%	100.0%
TOTAL	414	100.0%	100.0%
No Answer	13		

Mean Household Size 3.29

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Plymouth/Kingston** **Abington Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	531	97.6%
Not Licensed	13	2.4%
TOTAL	544	100.0%
No Answer	0	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	504	93.7%
No Auto Available	34	6.3%
TOTAL	538	100.0%
No Answer	5	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	9	1.7%	1.7%
One Vehicle	57	10.7%	12.3%
Two Vehicles	364	68.0%	80.4%
Three Vehicles	72	13.5%	93.8%
Four Vehicles	24	4.5%	98.3%
Five or More Vehicles	9	1.7%	100.0%
TOTAL	535	100.0%	100.0%
No Answer	7		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	9	1.7%	1.7%
Less than 0.5 Vehicles	59	11.2%	12.9%
0.5 to 0.99 Vehicles	217	41.2%	54.1%
1.0 to 1.49 Vehicles	218	41.4%	95.4%
1.5 to 1.99 Vehicles	7	1.3%	96.8%
2.0 or More Vehicles	17	3.2%	100.0%
TOTAL	527	100.0%	100.0%
No Answer	16		

Mean Household Size 3.09

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Plymouth/Kingston** **South Weymouth Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	646	96.7%
Not Licensed	22	3.3%
TOTAL	668	100.0%
No Answer	5	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	603	92.1%
No Auto Available	52	7.9%
TOTAL	655	100.0%
No Answer	17	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	12	1.8%	1.8%
One Vehicle	115	17.5%	19.3%
Two Vehicles	382	58.1%	77.5%
Three Vehicles	103	15.7%	93.2%
Four Vehicles	27	4.1%	97.3%
Five or More Vehicles	18	2.7%	100.0%
TOTAL	657	100.0%	100.0%
No Answer	16		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	12	1.8%	1.8%
Less than 0.5 Vehicles	29	4.4%	6.3%
0.5 to 0.99 Vehicles	276	42.3%	48.5%
1.0 to 1.49 Vehicles	303	46.4%	94.9%
1.5 to 1.99 Vehicles	24	3.7%	98.6%
2.0 or More Vehicles	9	1.4%	100.0%
TOTAL	653	100.0%	100.0%
No Answer	20		
Mean Household Size	2.76		

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Plymouth/Kingston** **Braintree Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	90	100.0%
Not Licensed	0	0.0%
TOTAL	90	100.0%
No Answer	0	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	84	93.3%
No Auto Available	6	6.7%
TOTAL	90	100.0%
No Answer	0	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	0	0.0%	0.0%
One Vehicle	14	15.6%	15.6%
Two Vehicles	51	56.7%	72.2%
Three Vehicles	17	18.9%	91.1%
Four Vehicles	8	8.9%	100.0%
Five or More Vehicles	0	0.0%	100.0%
TOTAL	90	100.0%	100.0%
No Answer	0		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	0	0.0%	0.0%
Less than 0.5 Vehicles	25	29.8%	29.8%
0.5 to 0.99 Vehicles	38	45.2%	75.0%
1.0 to 1.49 Vehicles	21	25.0%	100.0%
1.5 to 1.99 Vehicles	0	0.0%	100.0%
2.0 or More Vehicles	0	0.0%	100.0%
TOTAL	84	100.0%	100.0%
No Answer	5		
Mean Household Size	3.94		

Old Colony Commuter Rail

1998 Passenger Survey

Automobile Availability Data

Line: **Plymouth/Kingston** **Quincy Center Station**

Expanded Results

Licensed Drivers:

	Number of Riders	Percent of Riders
Licensed	46	100.0%
Not Licensed	0	0.0%
TOTAL	46	100.0%
No Answer	3	

Riders with Automobiles Available for Trip:

	Number of Riders	Percent of Riders
Auto Available	46	92.0%
No Auto Available	4	8.0%
TOTAL	50	100.0%
No Answer	0	

Vehicles Owned per Household:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	0	0.0%	0.0%
One Vehicle	18	36.0%	36.0%
Two Vehicles	25	50.0%	86.0%
Three Vehicles	7	14.0%	100.0%
Four Vehicles	0	0.0%	100.0%
Five or More Vehicles	0	0.0%	100.0%
TOTAL	50	100.0%	100.0%
No Answer	0		

Vehicles Owned per Capita:

	Number of Riders	Percent of Riders	Cumulative Percentage
No Vehicles	0	0.0%	0.0%
Less than 0.5 Vehicles	4	9.3%	9.3%
0.5 to 0.99 Vehicles	14	32.6%	41.9%
1.0 to 1.49 Vehicles	25	58.1%	100.0%
1.5 to 1.99 Vehicles	0	0.0%	100.0%
2.0 or More Vehicles	0	0.0%	100.0%
TOTAL	43	100.0%	100.0%
No Answer	7		
Mean Household Size	2.42		

7. Socioeconomic Data

Information Contained

Each Socioeconomic Data report consists of four tables on one page. The first table is Age of Riders. It shows the number and percentage of riders in the selected group in each age range listed on survey question 14. The second table in the report is Gender of Riders. It shows the number and percentage of male riders and female riders in the selected group based on survey question 21.

The third table in the report is Occupations of Riders. It shows the number and percentage of riders in the selected group with each of the seven occupations listed or all other occupations, based on survey question 19.

The fourth table in the report is Annual Household Incomes of Riders. It shows the number and percentage of riders in the selected group in each of the six household income ranges listed in survey question 20.

Age of Riders

On both Old Colony branches, responses were received from passengers in all six age groups listed on the survey form. Responses were concentrated most heavily in the three age groups from 25 to 64, which accounted for 85.6% of the riders on the Middleborough/Lakeville Line and for 87.9% on the Plymouth/Kingston Line. These results are largely reflective of ages of members of the labor force, since travel from home to work was the predominant trip purpose on both branches. The 1993 survey had similar results, with 83% to 89% of the riders on the lines then in operation being between the ages of 25 and 64. The most common individual age group on both Old Colony branches was ages 45 to 64. In contrast, on most of the lines surveyed in 1993 the most common age group was 25 to 34. The percentages in age group 35 to 44 on the Old Colony Lines were similar to those in the 1993 survey.

The higher average age of Old Colony riders was at least in part a reflection of lower attractiveness of the present Old Colony service area for first-time home buyers prior to the introduction of Old Colony service. Among riders making home-to-work trips that they had not made before Old Colony service started, 37.9% on the Middleborough/Lakeville Line and 41.6% on the Plymouth/Kingston Line were in the 25 to 34 age group. This contrasts with only 24.7% and 26.1% for riders who previously made the same trips by other means, and suggests that over time the age distributions on Old Colony lines will become more similar to those on the longer established routes.

The percentages of Old Colony riders in the two youngest age groups, 17 or under and 18 to 24, were within the ranges observed on the 1993 survey lines. Compared with the 1993 lines, the Middleborough/Lakeville Line was about average in 17 or under ridership, but above average in 18 to 24 ridership. The latter figure was pulled up partly by reverse-commuting trips from Bridgewater State College. Compared with the 1993 lines, the Plymouth/Kingston Line was above average in 17 or under ridership, but below average in 18 to 24 ridership. The 17 or under riders were mostly going to Archbishop Williams High School in Braintree or Boston College High School in Dorchester. In the 1993 survey, the lines with the highest percentages of riders aged 17 or under also served large private schools either directly or with van connections.

The below average Plymouth/Kingston Line figure for riders age 18 to 24 was partly a result of the lack of any on-line reverse-commuting colleges. It was also related to the relatively high average age of work-force members using this branch, as discussed above. Among riders making new home-to-work trips, the 18 to 24 age group was more than three times as important as it was for prior work-trip-makers (12.8% versus 3.7%). The Middleborough/Lakeville Line also showed much higher representation of ages 18 to 24 among riders making new trips to work than among prior work-trip-makers (17.9% versus 4.7%).

The percentages of riders aged 65 or older on both Old Colony branches were within the range found on the 1993 survey lines, but the figure for the Plymouth/Kingston Line was near the high end of the range. This was partly a result of a large number of passengers in this age group making non-repetitive social or recreational trips to or from locations such as museums, theaters, or restaurants. Because the Old Colony lines had been in operation for just under one year at the time of the survey some of these riders would still have been attracted by the novelty of the service. This factor will diminish over time.

Gender of Riders

On the Plymouth/Kingston Line, passenger gender was almost evenly divided between male and female, at 49% vs. 51%. The Middleborough/Lakeville Line had a much lower proportion of male riders, however, at 44% vs. 56% female. The reason for this difference is unclear. At four stations, Campello, Montello, Holbrook/Randolph, and Quincy Center over 60% of the respondents were female. In contrast, on the Plymouth/Kingston Line, the only stations with over 60% female riders were Plymouth and Quincy Center, which had the lowest boarding totals on the branch.

The 1993 commuter rail survey did not include a question on gender. The 1994 rapid transit survey had results similar to those for the Middleborough/Lakeville Line at stations on the Braintree branch of the Red Line and at Ashmont Station, where females accounted for 59% to 62% of the riders. The results may be biased if female riders are more inclined than male riders to fill out surveys.

Occupations of Riders

Technical/Professional

On both Old Colony branches, the most common occupation reported (61.1% on the Middleborough/Lakeville Line and 64.7%) on the Plymouth/Kingston Line) was Technical/Professional. This was partly because this category covered a much greater number of possible occupations than any other category listed on the survey form. On the 1993 survey forms, the occupations listed were slightly different, with "Professional" accounting for 64% to 81% of the riders. The lower Old Colony figures were partly a result of the different choices listed on the two survey forms.

Secretarial/Clerical

The second most common occupation for Old Colony riders was Secretarial/Clerical, with 19.2% of riders on the Middleborough/Lakeville Line and 15.1% on the Plymouth/Kingston Line. These differences were consistent with the higher percentage of female riders on the Middleborough/Lakeville Line, as over 95% of the riders on each line with Secretarial/Clerical jobs were female. In the 1993 survey 8% to 17% of riders on each line listed their occupations as Clerical, but Secretarial was not included specifically as a category on the survey form. Clerical was the second most common occupation in that survey.

Service/Trades

Service/Trades accounted for the third-largest number of riders on both Old Colony branches, at 6.8% of the total on each line. The 1993 survey form did not include service jobs as a specific category, so it is unclear how passengers with such jobs responded to this question. The 1993 form did include a category of Tradesperson, which ranked fifth on most lines, with a range of 1.5% to 4.0% of all riders.

Student

Student ridership ranked fourth on both Old Colony branches, at 6.4%, on the Middleborough/Lakeville Line and 5.8%, on the Plymouth/Kingston Line. The higher proportion of student riders on the Middleborough/Lakeville Line was partly attributable to reverse-commuting to Bridgewater State College. No large commuter schools or colleges are located near stations served exclusively by the Plymouth/Kingston Line. In the 1993 survey Student was the second, third, or fourth-largest occupation on each line, at 4% to 13%. Differences among lines in that survey depended largely on the number of schools served by outlying stations rather than in travel to schools in Boston.

Retail/Sales

Retail and Sales jobs ranked fifth, slightly ahead of Unemployed/Retired, at 2.5% on the Middleborough/Lakeville. On the Plymouth/Kingston Line Retail and Sales accounted for 3.1%, but nevertheless the number of Unemployed/Retired riders was slightly greater. The 1993 survey form did not include a specific category for retail or sales jobs, so it is unclear how passengers with such occupations responded.

Unemployed/Retired

Unemployed or retired passengers accounted for the sixth-largest group on the Middleborough/Lakeville Line, at 2.4%, and for the fifth-largest group on the Plymouth/Kingston Line, at 3.4%. The survey form did not distinguish between unemployed and retired passengers, although some in this group wrote in or circled one or the other. Presumably, most passengers aged 65 or over in this group were retired. Some younger passengers may also have taken early retirements. Under these assumptions, at least 1.1% of the riders on the Middleborough/Lakeville Line and at least 2.0% on the Plymouth/Kingston Line were retirees, leaving at most about 1.4% unemployed on each branch.

The 1993 survey form included separate categories for Retired and Unemployed. The proportion of retired passengers on each line in that survey ranged from 0.6% to 3.6%, so the Old Colony results were very consistent with this. No more than 0.8% of the riders on any line in 1993 were unemployed, however. The larger percentage of unemployed on the Old Colony Lines is partly a result of the calculation method that counts retirees under age 65 as unemployed. Some actual unemployed riders may have been using Old Colony service for new job searches, but most could previously have used private carrier buses to travel to the same prospective job sites.

Homemaker and Other

On both Old Colony branches, the smallest passenger groups were Homemaker, at 0.5%, and Other at 1.0% and 0.7%. The survey form included a space for passengers who checked Other as he occupation to write in a specific occupation. The majority of those that did so listed jobs that could reasonably have been included in one of the seven more specific categories listed on the form, and such responses were re-classified accordingly when the results were processed. Most of the remaining responses in the Other category either did not write in any detail or described the occupation too vaguely to permit re-classification.

The low proportion of Homemakers on the Old Colony lines is consistent with the predominance of home-to-work trips, since Homemakers by definition do not have to leave home to go to work. The majority of Homemakers used Old Colony service less than one day a week. The 1993 survey results were similar, with only one line having more than 1% of its riders reporting their occupations as Homemaker.

Annual Household Incomes of Riders

This table shows the number and percentage of riders checking each Annual Household income range on the survey, plus the cumulative percentages with incomes in or below each individual range. This question had the highest "no-response" rate (12%) of any on the survey form. This is typical of survey responses to income questions. Many respondents refuse to divulge their income even though the surveys are anonymous. Others may be uncertain of total household income although they would be willing to report their individual incomes.

Among Old Colony riders that did respond to the income question, there were significant disparities between the two branches in income levels reported in each category. On the Middleborough/Lakeville Line, 48.6% of riders reported household incomes of under $60,000, with 4.5% showing incomes of under $20,000 and 29.2% showing incomes of $80,000 or more. In contrast, on the Plymouth/Kingston Line only 35.7% reported household incomes of under $60,000, with only 2.5% under $20,000 and 39.5% over $80,000.

On both branches the distributions of passengers by income range varied among stations. On the Middleborough/Lakeville Line, passengers boarding at Brockton and Montello had the lowest average household incomes, with 9.5% and 6.0% at under $20,000; 64.0% and 65.9% under $60,000, and only 13.5% and 16.4% at over $80,000. At the opposite extreme, at Holbrook/Randolph only 1.4% of riders reported household incomes below $20,000, only 40.2% were below $60,000 and 34.8% were in the $80,000 or over range. (Results from Braintree and Quincy Center are discussed below for both Old Colony branches combined).

On the Plymouth/Kingston Line, the distributions of passengers by income range at individual stations varied less from the averages. Excluding passengers boarding at stations shared with the Middleborough/Lakeville Line, riders at South Weymouth had the highest average household incomes, with 1.2% under $20,000, 32.6% under $60,000, and 46.7% over $80,000. Passengers using Plymouth station had the lowest average household incomes (40.0% under $20,000; 68.0% under $60,000, and 12.0% over $80,000), but these results are not comparable with any others because Plymouth Station had only off-peak service and most of the passengers were making infrequently repeated non-work trips. Among Plymouth residents boarding at stations other than Plymouth, average incomes were only slightly below those for the branch as a whole. Excluding boardings at Plymouth, passengers using Whitman Station had the lowest average household incomes on the branch, with 2.1% under $20,000, 34.9% under $60,000, and 33.6% over $80,000.

At Braintree Station, among riders on the two Old Colony branches combined, no riders reported household incomes below $20,000, only 23.7% were below $60,000, and 60.8% were over $80,000. Passengers traveling from Braintree to Boston can use the Red Line instead of Old Colony trains, and Red Line fares are significantly lower. On the Red Line, a single-ride adult cash fare from Braintree to Boston is $1.70, compared with $2.25

on the Old Colony. The lowest pass level valid on the Red Line is a Combo Plus costing $48 a month. On Old Colony trains the lowest level valid pass is a Zone 2, costing $72 a month. Riders in lower income ranges would be expected to be more cost-conscious than those in higher ranges, and thus less likely to use Old Colony service. For comparison, in the 1994 Red Line survey, of riders boarding at Braintree 3.1% reported household incomes below $20,000; 50.5% were below $60,000, and only 23.0% were above $80,000, but some "bracket creep" would be expected in the four years between the two surveys.

At Quincy Center Station among riders on the two Old Colony branches combined, 3.4% of riders reported household incomes below $20,000, only 35.3% were below $60,000, and 38.7% were over $80,000. As at Braintree, passengers traveling from Quincy Center to Boston can use the Red Line instead of Old Colony trains, and Red Line fares are significantly lower. On the Red Line, a single-ride adult cash fare from Quincy Center to Boston is $1.70 inbound or $0.85 outbound compared with $2.00 each way on the Old Colony. The lowest pass level valid on the Red Line is a Combo costing $46 a month. On Old Colony trains the lowest level valid pass is a Zone 1, costing $64 a month. Riders in lower income ranges would be expected to be more cost-conscious than those in higher ranges, and thus less likely to use Old Colony service. For comparison, in the 1994 Red Line survey, of riders boarding at Quincy Center 11.3% reported household incomes below $20,000, 72.9% were below $60,000, and only 10.9% were above $80,000, but some "bracket creep" would be expected in the four years between the two surveys.

On both Old Colony branches the overall average household size was 3.0. Excluding the two stations served by both branches, the range by station on the Middleborough/Lakeville Line was 2.9 to 3.1. The range on the Plymouth/Kingston Line was slightly greater, at 2.8 to 3.3. At Braintree Station for passengers using trains on both branches combined household size averaged 3.9, but at Quincy Center the average was only 2.5. At both stations the results were affected by the impact of Red Line fares on income level distribution. In the 1994 Red Line survey the average household size of Braintree passengers was 3.0, the same as the overall Old Colony average. At Quincy Center, the average household size among 1994 Red Line riders was 2.7. The lower average household size at Quincy is a reflection of the higher number of apartment houses with single residents or couples without children.

Household income results from the 1993 commuter rail survey are not strictly comparable with those from the Old Colony survey because of increases in average incomes during the intervening five years. In 1993 incomes under $20,000 were reported by 4.0% to 10.2% of riders on each line. Incomes below $60,000 ranged from 46.4% to 70.2%, and those above $80,000 from 15.3% to 34.1%. The 1993 survey did not have a question on household size.

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Middleborough/Lakeville** **All Stations**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	32	1.1%	1.1%
18 - 24	314	10.7%	11.8%
25 - 34	762	26.1%	37.9%
35 - 44	813	27.8%	65.7%
45 - 64	927	31.7%	97.4%
65 and Older	77	2.6%	100.0%
TOTAL	2,925	100.0%	100.0%
No Answer	39		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	1,253	43.5%
Female	1,626	56.4%
TOTAL	2,879	100.0%
No Answer	85	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	72	2.5%
Service/Trades	197	6.8%
Student	184	6.4%
Secretarial/Clerical	552	19.2%
Homemaker	15	0.5%
Technical/Professional	1,759	61.1%
Unemployed/Retired	69	2.4%
Other	29	1.0%
TOTAL	2,877	100.0%
No Answer	88	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	118	4.5%	4.5%
$20,000 - $29,999	227	8.6%	13.1%
$30,000 - $39,999	319	12.1%	25.2%
$40,000 - $59,999	614	23.3%	48.6%
$60,000 - $79,999	583	22.2%	70.8%
Over $80,000	769	29.2%	100.0%
TOTAL	2,630	100.0%	100.0%
No Answer	334		
Mean Household Size	3.00		

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Middleborough/Lakeville** **Middleborough/Lakeville Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	1	0.1%	0.1%
18 - 24	67	9.7%	9.9%
25 - 34	176	25.5%	35.4%
35 - 44	205	29.8%	65.2%
45 - 64	214	31.1%	96.2%
65 and Older	26	3.8%	100.0%
TOTAL	689	100.0%	100.0%
No Answer	6		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	329	48.0%
Female	356	51.9%
TOTAL	685	100.0%
No Answer	10	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	16	2.3%
Service/Trades	55	8.0%
Student	36	5.2%
Secretarial/Clerical	100	14.5%
Homemaker	7	1.0%
Technical/Professional	442	64.2%
Unemployed/Retired	25	3.6%
Other	7	1.0%
TOTAL	688	100.0%
No Answer	8	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	21	3.3%	3.3%
$20,000 - $29,999	53	8.4%	11.7%
$30,000 - $39,999	80	12.7%	24.4%
$40,000 - $59,999	151	24.0%	48.4%
$60,000 - $79,999	147	23.3%	71.7%
Over $80,000	178	28.3%	100.0%
TOTAL	630	100.0%	100.0%
No Answer	66		

Mean Household Size 2.92

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Middleborough/Lakeville** **Bridgewater Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	20	3.2%	3.2%
18 - 24	108	17.4%	20.6%
25 - 34	179	28.8%	49.4%
35 - 44	140	22.5%	71.9%
45 - 64	169	27.2%	99.0%
65 and Older	6	1.0%	100.0%
TOTAL	622	100.0%	100.0%
No Answer	3		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	312	50.7%
Female	303	49.2%
TOTAL	615	100.0%
No Answer	8	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	16	2.6%
Service/Trades	38	6.2%
Student	76	12.4%
Secretarial/Clerical	94	15.3%
Homemaker	0	0.0%
Technical/Professional	381	62.2%
Unemployed/Retired	4	0.7%
Other	4	0.7%
TOTAL	613	100.0%
No Answer	10	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	26	4.7%	4.7%
$20,000 - $29,999	34	6.1%	10.8%
$30,000 - $39,999	70	12.7%	23.5%
$40,000 - $59,999	105	19.0%	42.5%
$60,000 - $79,999	117	21.2%	63.7%
Over $80,000	201	36.3%	100.0%
TOTAL	553	100.0%	100.0%
No Answer	71		
Mean Household Size	3.08		

CTPS

11/12/99

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Middleborough/Lakeville** **Campello Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	0	0.0%	0.0%
18 - 24	33	8.1%	8.1%
25 - 34	101	24.8%	32.8%
35 - 44	106	26.0%	58.8%
45 - 64	153	37.5%	96.3%
65 and Older	15	3.7%	100.0%
TOTAL	408	100.0%	100.0%
No Answer	9		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	159	39.8%
Female	241	60.1%
TOTAL	401	100.0%
No Answer	16	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	8	2.0%
Service/Trades	41	10.1%
Student	17	4.2%
Secretarial/Clerical	96	23.7%
Homemaker	2	0.5%
Technical/Professional	226	55.8%
Unemployed/Retired	14	3.5%
Other	1	0.2%
TOTAL	405	100.0%
No Answer	13	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	21	5.3%	5.3%
$20,000 - $29,999	23	5.9%	11.2%
$30,000 - $39,999	50	12.7%	23.9%
$40,000 - $59,999	96	24.4%	48.3%
$60,000 - $79,999	91	23.2%	71.5%
Over $80,000	112	28.5%	100.0%
TOTAL	393	100.0%	100.0%
No Answer	24		
Mean Household Size	2.95		

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Middleborough/Lakeville** **Brockton Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	4	1.6%	1.6%
18 - 24	29	11.7%	13.4%
25 - 34	63	25.5%	38.9%
35 - 44	78	31.6%	70.4%
45 - 64	70	28.3%	98.8%
65 and Older	3	1.2%	100.0%
TOTAL	247	100.0%	100.0%
No Answer	1		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	113	47.1%
Female	126	52.8%
TOTAL	239	100.0%
No Answer	9	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	10	4.3%
Service/Trades	19	8.2%
Student	11	4.7%
Secretarial/Clerical	40	17.2%
Homemaker	0	0.0%
Technical/Professional	131	56.5%
Unemployed/Retired	11	4.7%
Other	10	4.3%
TOTAL	232	100.0%
No Answer	15	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	21	9.5%	9.5%
$20,000 - $29,999	48	21.6%	31.1%
$30,000 - $39,999	22	9.9%	41.0%
$40,000 - $59,999	51	23.0%	64.0%
$60,000 - $79,999	50	22.5%	86.5%
Over $80,000	30	13.5%	100.0%
TOTAL	222	100.0%	100.0%
No Answer	26		

Mean Household Size 3.11

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Middleborough/Lakeville** **Montello Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	5	1.4%	1.4%
18 - 24	47	13.5%	14.9%
25 - 34	86	24.7%	39.7%
35 - 44	93	26.7%	66.4%
45 - 64	113	32.5%	98.9%
65 and Older	4	1.1%	100.0%
TOTAL	348	100.0%	100.0%
No Answer	8		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	126	37.0%
Female	215	62.9%
TOTAL	342	100.0%
No Answer	13	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	6	1.8%
Service/Trades	20	5.9%
Student	29	8.6%
Secretarial/Clerical	79	23.4%
Homemaker	2	0.6%
Technical/Professional	190	56.2%
Unemployed/Retired	8	2.4%
Other	4	1.2%
TOTAL	338	100.0%
No Answer	16	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	19	6.0%	6.0%
$20,000 - $29,999	47	14.8%	20.8%
$30,000 - $39,999	55	17.4%	38.2%
$40,000 - $59,999	88	27.8%	65.9%
$60,000 - $79,999	56	17.7%	83.6%
Over $80,000	52	16.4%	100.0%
TOTAL	317	100.0%	100.0%
No Answer	39		
Mean Household Size	3.08		

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Middleborough/Lakeville** **Holbrook/Randolph Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	3	0.6%	0.6%
18 - 24	30	6.0%	6.6%
25 - 34	108	21.7%	28.3%
35 - 44	158	31.7%	60.0%
45 - 64	186	37.3%	97.4%
65 and Older	13	2.6%	100.0%
TOTAL	498	100.0%	100.0%
No Answer	5		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	167	34.5%
Female	318	65.4%
TOTAL	485	100.0%
No Answer	17	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	9	1.9%
Service/Trades	23	4.8%
Student	14	2.9%
Secretarial/Clerical	112	23.2%
Homemaker	4	0.8%
Technical/Professional	312	64.6%
Unemployed/Retired	7	1.4%
Other	2	0.4%
TOTAL	483	100.0%
No Answer	19	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	6	1.4%	1.4%
$20,000 - $29,999	22	5.2%	6.7%
$30,000 - $39,999	42	10.0%	16.7%
$40,000 - $59,999	99	23.6%	40.2%
$60,000 - $79,999	105	25.0%	65.2%
Over $80,000	146	34.8%	100.0%
TOTAL	420	100.0%	100.0%
No Answer	82		
Mean Household Size	2.95		

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Middleborough/Lakeville** **Braintree Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	0	0.0%	0.0%
18 - 24	0	0.0%	0.0%
25 - 34	12	50.0%	50.0%
35 - 44	4	16.7%	66.7%
45 - 64	8	33.3%	100.0%
65 and Older	0	0.0%	100.0%
TOTAL	24	100.0%	100.0%
No Answer	0		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	20	83.3%
Female	4	16.6%
TOTAL	24	100.0%
No Answer	0	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	0	0.0%
Service/Trades	0	0.0%
Student	0	0.0%
Secretarial/Clerical	4	16.7%
Homemaker	0	0.0%
Technical/Professional	20	83.3%
Unemployed/Retired	0	0.0%
Other	0	0.0%
TOTAL	24	100.0%
No Answer	0	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	0	0.0%	0.0%
$20,000 - $29,999	0	0.0%	0.0%
$30,000 - $39,999	0	0.0%	0.0%
$40,000 - $59,999	4	20.0%	20.0%
$60,000 - $79,999	4	20.0%	40.0%
Over $80,000	12	60.0%	100.0%
TOTAL	20	100.0%	100.0%
No Answer	4		
Mean Household Size	3.83		

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Middleborough/Lakeville** **Quincy Center Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	0	0.0%	0.0%
18 - 24	0	0.0%	0.0%
25 - 34	38	42.2%	42.2%
35 - 44	29	32.2%	74.4%
45 - 64	13	14.4%	88.9%
65 and Older	10	11.1%	100.0%
TOTAL	90	100.0%	100.0%
No Answer	4		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	24	28.6%
Female	61	71.3%
TOTAL	85	100.0%
No Answer	8	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	6	6.7%
Service/Trades	0	0.0%
Student	0	0.0%
Secretarial/Clerical	27	30.0%
Homemaker	0	0.0%
Technical/Professional	57	63.3%
Unemployed/Retired	0	0.0%
Other	0	0.0%
TOTAL	90	100.0%
No Answer	4	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	4	5.3%	5.3%
$20,000 - $29,999	0	0.0%	5.3%
$30,000 - $39,999	0	0.0%	5.3%
$40,000 - $59,999	20	26.3%	31.6%
$60,000 - $79,999	13	17.1%	48.7%
Over $80,000	39	51.3%	100.0%
TOTAL	76	100.0%	100.0%
No Answer	18		
Mean Household Size	2.54		

CTPS

11/12/99

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Plymouth/Kingston** **All Stations**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	65	1.8%	1.8%
18 - 24	243	6.9%	8.7%
25 - 34	992	28.0%	36.7%
35 - 44	981	27.7%	64.3%
45 - 64	1,141	32.2%	96.5%
65 and Older	124	3.5%	100.0%
TOTAL	3,546	100.0%	100.0%
No Answer	34		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	1,719	49.0%
Female	1,784	50.9%
TOTAL	3,503	100.0%
No Answer	75	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	108	3.1%
Service/Trades	238	6.8%
Student	203	5.8%
Secretarial/Clerical	530	15.1%
Homemaker	18	0.5%
Technical/Professional	2,270	64.7%
Unemployed/Retired	119	3.4%
Other	24	0.7%
TOTAL	3,510	100.0%
No Answer	70	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	77	2.5%	2.5%
$20,000 - $29,999	138	4.4%	6.9%
$30,000 - $39,999	265	8.4%	15.3%
$40,000 - $59,999	639	20.4%	35.7%
$60,000 - $79,999	778	24.8%	60.5%
Over $80,000	1,240	39.5%	100.0%
TOTAL	3,137	100.0%	100.0%
No Answer	442		
Mean Household Size	3.01		

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Plymouth/Kingston** **Plymouth Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	2	3.1%	3.1%
18 - 24	10	15.4%	18.5%
25 - 34	13	20.0%	38.5%
35 - 44	13	20.0%	58.5%
45 - 64	20	30.8%	89.2%
65 and Older	7	10.8%	100.0%
TOTAL	65	100.0%	100.0%
No Answer	0		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	24	37.6%
Female	39	62.3%
TOTAL	63	100.0%
No Answer	0	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	1	1.7%
Service/Trades	9	15.3%
Student	14	23.7%
Secretarial/Clerical	2	3.4%
Homemaker	7	11.9%
Technical/Professional	19	32.2%
Unemployed/Retired	7	11.9%
Other	0	0.0%
TOTAL	59	100.0%
No Answer	4	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	20	40.0%	40.0%
$20,000 - $29,999	5	10.0%	50.0%
$30,000 - $39,999	3	6.0%	56.0%
$40,000 - $59,999	6	12.0%	68.0%
$60,000 - $79,999	10	20.0%	88.0%
Over $80,000	6	12.0%	100.0%
TOTAL	50	100.0%	100.0%
No Answer	13		

Mean Household Size 2.77

CTPS

11/12/99

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Plymouth/Kingston** **Kingston/Route 3 Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	31	3.4%	3.4%
18 - 24	57	6.3%	9.7%
25 - 34	200	22.1%	31.8%
35 - 44	233	25.7%	57.6%
45 - 64	318	35.1%	92.7%
65 and Older	66	7.3%	100.0%
TOTAL	905	100.0%	100.0%
No Answer	2		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	462	51.9%
Female	427	48.0%
TOTAL	889	100.0%
No Answer	17	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	39	4.4%
Service/Trades	47	5.3%
Student	74	8.3%
Secretarial/Clerical	96	10.7%
Homemaker	6	0.7%
Technical/Professional	560	62.6%
Unemployed/Retired	70	7.8%
Other	2	0.2%
TOTAL	894	100.0%
No Answer	13	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	21	2.6%	2.6%
$20,000 - $29,999	51	6.4%	9.0%
$30,000 - $39,999	58	7.3%	16.3%
$40,000 - $59,999	186	23.3%	39.5%
$60,000 - $79,999	174	21.8%	61.3%
Over $80,000	309	38.7%	100.0%
TOTAL	799	100.0%	100.0%
No Answer	107		

Mean Household Size 2.86

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Plymouth/Kingston** **Halifax Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	9	2.3%	2.3%
18 - 24	24	6.0%	8.3%
25 - 34	121	30.5%	38.8%
35 - 44	94	23.7%	62.5%
45 - 64	146	36.8%	99.2%
65 and Older	3	0.8%	100.0%
TOTAL	397	100.0%	100.0%
No Answer	9		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	202	51.3%
Female	191	48.6%
TOTAL	394	100.0%
No Answer	10	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	9	2.3%
Service/Trades	33	8.3%
Student	19	4.8%
Secretarial/Clerical	56	14.1%
Homemaker	1	0.3%
Technical/Professional	274	68.8%
Unemployed/Retired	6	1.5%
Other	0	0.0%
TOTAL	398	100.0%
No Answer	7	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	2	0.6%	0.6%
$20,000 - $29,999	11	3.1%	3.7%
$30,000 - $39,999	25	7.0%	10.7%
$40,000 - $59,999	79	22.3%	33.0%
$60,000 - $79,999	98	27.6%	60.6%
Over $80,000	140	39.4%	100.0%
TOTAL	355	100.0%	100.0%
No Answer	48		
Mean Household Size	3.08		

CTPS

11/12/99

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Plymouth/Kingston** **Hanson Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	10	2.4%	2.4%
18 - 24	29	7.0%	9.4%
25 - 34	106	25.4%	34.8%
35 - 44	126	30.2%	65.0%
45 - 64	134	32.1%	97.1%
65 and Older	12	2.9%	100.0%
TOTAL	417	100.0%	100.0%
No Answer	3		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	215	52.0%
Female	198	47.9%
TOTAL	413	100.0%
No Answer	7	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	6	1.5%
Service/Trades	23	5.6%
Student	25	6.1%
Secretarial/Clerical	61	14.8%
Homemaker	5	1.2%
Technical/Professional	280	68.0%
Unemployed/Retired	7	1.7%
Other	5	1.2%
TOTAL	412	100.0%
No Answer	8	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	7	1.9%	1.9%
$20,000 - $29,999	7	1.9%	3.8%
$30,000 - $39,999	21	5.6%	9.4%
$40,000 - $59,999	96	25.8%	35.2%
$60,000 - $79,999	108	29.0%	64.2%
Over $80,000	133	35.8%	100.0%
TOTAL	372	100.0%	100.0%
No Answer	47		

Mean Household Size 3.18

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Plymouth/Kingston** **Whitman Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	8	1.9%	1.9%
18 - 24	35	8.3%	10.2%
25 - 34	133	31.5%	41.7%
35 - 44	117	27.7%	69.4%
45 - 64	121	28.7%	98.1%
65 and Older	8	1.9%	100.0%
TOTAL	422	100.0%	100.0%
No Answer	5		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	196	48.1%
Female	211	51.8%
TOTAL	408	100.0%
No Answer	19	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	10	2.4%
Service/Trades	25	6.0%
Student	23	5.5%
Secretarial/Clerical	72	17.3%
Homemaker	0	0.0%
Technical/Professional	273	65.6%
Unemployed/Retired	10	2.4%
Other	3	0.7%
TOTAL	416	100.0%
No Answer	10	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	8	2.1%	2.1%
$20,000 - $29,999	17	4.5%	6.7%
$30,000 - $39,999	33	8.8%	15.5%
$40,000 - $59,999	73	19.5%	34.9%
$60,000 - $79,999	118	31.5%	66.4%
Over $80,000	126	33.6%	100.0%
TOTAL	375	100.0%	100.0%
No Answer	51		
Mean Household Size	3.29		

CTPS

11/12/99

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Plymouth/Kingston** **Abington Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	5	0.9%	0.9%
18 - 24	35	6.5%	7.4%
25 - 34	170	31.6%	39.0%
35 - 44	163	30.3%	69.3%
45 - 64	155	28.8%	98.1%
65 and Older	10	1.9%	100.0%
TOTAL	538	100.0%	100.0%
No Answer	4		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	239	44.4%
Female	298	55.5%
TOTAL	538	100.0%
No Answer	4	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	15	2.8%
Service/Trades	42	7.9%
Student	35	6.6%
Secretarial/Clerical	103	19.3%
Homemaker	0	0.0%
Technical/Professional	327	61.4%
Unemployed/Retired	6	1.1%
Other	5	0.9%
TOTAL	533	100.0%
No Answer	9	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	10	2.1%	2.1%
$20,000 - $29,999	20	4.1%	6.2%
$30,000 - $39,999	35	7.2%	13.5%
$40,000 - $59,999	96	19.9%	33.3%
$60,000 - $79,999	122	25.3%	58.6%
Over $80,000	200	41.4%	100.0%
TOTAL	483	100.0%	100.0%
No Answer	60		
Mean Household Size	3.09		

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Plymouth/Kingston** **South Weymouth Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	0	0.0%	0.0%
18 - 24	43	6.5%	6.5%
25 - 34	211	31.7%	38.2%
35 - 44	213	32.0%	70.2%
45 - 64	183	27.5%	97.7%
65 and Older	15	2.3%	100.0%
TOTAL	665	100.0%	100.0%
No Answer	8		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	298	45.5%
Female	357	54.4%
TOTAL	656	100.0%
No Answer	17	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	19	2.9%
Service/Trades	48	7.3%
Student	9	1.4%
Secretarial/Clerical	112	17.1%
Homemaker	0	0.0%
Technical/Professional	452	68.9%
Unemployed/Retired	11	1.7%
Other	5	0.8%
TOTAL	656	100.0%
No Answer	16	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	7	1.2%	1.2%
$20,000 - $29,999	14	2.4%	3.6%
$30,000 - $39,999	76	13.1%	16.7%
$40,000 - $59,999	92	15.9%	32.6%
$60,000 - $79,999	120	20.7%	53.3%
Over $80,000	271	46.7%	100.0%
TOTAL	580	100.0%	100.0%
No Answer	93		

Mean Household Size 2.76

CTPS

11/12/99

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Plymouth/Kingston** **Braintree Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	0	0.0%	0.0%
18 - 24	0	0.0%	0.0%
25 - 34	20	22.5%	22.5%
35 - 44	15	16.9%	39.3%
45 - 64	50	56.2%	95.5%
65 and Older	4	4.5%	100.0%
TOTAL	89	100.0%	100.0%
No Answer	0		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	62	69.6%
Female	27	30.3%
TOTAL	89	100.0%
No Answer	0	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	5	5.6%
Service/Trades	10	11.1%
Student	4	4.4%
Secretarial/Clerical	11	12.2%
Homemaker	0	0.0%
Technical/Professional	60	66.7%
Unemployed/Retired	0	0.0%
Other	0	0.0%
TOTAL	90	100.0%
No Answer	0	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	0	0.0%	0.0%
$20,000 - $29,999	5	6.5%	6.5%
$30,000 - $39,999	10	13.0%	19.5%
$40,000 - $59,999	4	5.2%	24.7%
$60,000 - $79,999	11	14.3%	39.0%
Over $80,000	47	61.0%	100.0%
TOTAL	77	100.0%	100.0%
No Answer	12		

Mean Household Size 3.94

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Plymouth/Kingston** **Quincy Center Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	0	0.0%	0.0%
18 - 24	11	22.0%	22.0%
25 - 34	18	36.0%	58.0%
35 - 44	7	14.0%	72.0%
45 - 64	14	28.0%	100.0%
65 and Older	0	0.0%	100.0%
TOTAL	50	100.0%	100.0%
No Answer	0		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	17	35.7%
Female	31	64.2%
TOTAL	49	100.0%
No Answer	0	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	4	7.8%
Service/Trades	0	0.0%
Student	0	0.0%
Secretarial/Clerical	18	35.3%
Homemaker	0	0.0%
Technical/Professional	25	49.0%
Unemployed/Retired	0	0.0%
Other	4	7.8%
TOTAL	51	100.0%
No Answer	0	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	0	0.0%	0.0%
$20,000 - $29,999	7	16.3%	16.3%
$30,000 - $39,999	4	9.3%	25.6%
$40,000 - $59,999	7	16.3%	41.9%
$60,000 - $79,999	18	41.9%	83.7%
Over $80,000	7	16.3%	100.0%
TOTAL	43	100.0%	100.0%
No Answer	7		

Mean Household Size 2.42

CTPS
11/12/99

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Both Old Colony Lines** **Braintree Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	0	0.0%	0.0%
18 - 24	0	0.0%	0.0%
25 - 34	32	28.3%	28.3%
35 - 44	19	16.8%	45.1%
45 - 64	58	51.3%	96.5%
65 and Older	4	3.5%	100.0%
TOTAL	113	100.0%	100.0%
No Answer	0		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	82	72.5%
Female	31	27.4%
TOTAL	113	100.0%
No Answer	0	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	5	4.4%
Service/Trades	10	8.8%
Student	4	3.5%
Secretarial/Clerical	15	13.2%
Homemaker	0	0.0%
Technical/Professional	80	70.2%
Unemployed/Retired	0	0.0%
Other	0	0.0%
TOTAL	114	100.0%
No Answer	0	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	0	0.0%	0.0%
$20,000 - $29,999	5	5.2%	5.2%
$30,000 - $39,999	10	10.3%	15.5%
$40,000 - $59,999	8	8.2%	23.7%
$60,000 - $79,999	15	15.5%	39.2%
Over $80,000	59	60.8%	100.0%
TOTAL	97	100.0%	100.0%
No Answer	16		
Mean Household Size	3.92		

Old Colony Commuter Rail

1998 Passenger Survey

Socioeconomic Data

Line: **Both Old Colony Lines** **Quincy Center Station**

Expanded Results

Age of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
17 and Under	0	0.0%	0.0%
18 - 24	11	7.9%	7.9%
25 - 34	56	40.0%	47.9%
35 - 44	36	25.7%	73.6%
45 - 64	27	19.3%	92.9%
65 and Older	10	7.1%	100.0%
TOTAL	140	100.0%	100.0%
No Answer	4		

Gender of Riders:

	Number of Riders	Percent of Riders
Male	42	31.2%
Female	92	68.7%
TOTAL	134	100.0%
No Answer	8	

Occupations of Riders:

	Number of Riders	Percent of Riders
Retail/Sales	9	6.5%
Service/Trades	0	0.0%
Student	0	0.0%
Secretarial/Clerical	44	31.7%
Homemaker	0	0.0%
Technical/Professional	82	59.0%
Unemployed/Retired	0	0.0%
Other	4	2.9%
TOTAL	139	100.0%
No Answer	4	

Annual Household Incomes of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under $20,000	4	3.4%	3.4%
$20,000 - $29,999	7	5.9%	9.2%
$30,000 - $39,999	4	3.4%	12.6%
$40,000 - $59,999	27	22.7%	35.3%
$60,000 - $79,999	31	26.1%	61.3%
Over $80,000	46	38.7%	100.0%
TOTAL	119	100.0%	100.0%
No Answer	25		
Mean Household Size	2.50		

CTPS

11/12/99

8. Customer Service Data and Reasons for Using Old Colony

Information Contained

Each Customer Service Data and Reasons for Using Old Colony report consists of two tables on one page. The first table, Service Quality, summarizes the results of Survey question 24. In this question, passengers gave their opinions on each of 15 service quality measures, on a scale of one to five. On this scale, one was Very Poor, three was Average, and five was Very Good. Two and four were not labeled. In addition, passengers were asked to place check marks beside the three service quality measures on the list that they considered most important. For each measure, the table shows the mean rating, the percent of passengers that assigned each rating value, the total number of responses, the number that did not respond, and the number that checked each measure as one of the three most important. (The non-responses are excluded from percentages.) The 1993 survey included a similar list of service quality measures to be ranked by passengers, but did not include a check-off column for the three most important measures.

The second table in this report, Reasons for Using Old Colony Service, shows the number and percentage of passengers checking each of the reasons listed in survey question 23. Station-by-station summaries have not been included in this chapter, because relatively little of the information in the tables is of a station-specific nature.

Service Quality

The survey instructions asked respondents to check the three service measures that they considered most important, but many respondents checked either more or less than three. In the service quality tables, the service measures are listed in the same order that they appeared on the survey form. In the discussion below, however, they are listed in descending order of the number of passengers that listed them as the most important service measures on both Old Colony branches combined. Eight of the 15 measures had the same rankings on both branches. For the other seven, the ranking by individual branch was at most one place higher or lower than the combined ranking.

1. Frequency of Service

On both Old Colony branches, frequency of service was the measure cited by the largest number of passengers as one of the three most important. The ratings of frequency on both branches were similar, with about 75% calling it average or better, and a mean rating of 3.3. This was the lowest or second-lowest mean for any service quality measure on each branch.

Frequency was considered very good by 16.8% on the Middleborough/Lakeville Line but by only 14.3% on the Plymouth/Kingston Line. At the opposite extreme, frequency was rated as very poor by 6.5% and 7.7%, respectively. These were the smallest percentages of very good ratings given to any service attribute, and were the second or third-largest very poor ratings. The Plymouth/Kingston Line has always had the greater amount of service of the two branches. The lower frequency rankings suggest that specific departure times or peak-period seating capacity rather than frequency per se were the real concerns of many passengers ranking this attribute. Service frequencies have not changed on either Old Colony branch between the time of the survey and this writing, but some minor adjustments in arrival or departure times of some trains were implemented shortly after the survey.

In the 1993 survey, frequency was also rated as one of the least satisfactory service attributes on most of the lines then in operation. The dissatisfaction of many present commuter rail riders with train frequency suggests that among potential riders who do not use the service, frequency is at least as important a consideration. More frequent service, if feasible, might therefore result in commuter rail capturing a significantly larger share of the travel markets in its service areas.

2. AM On-Time Performance

In general, passengers on both Old Colony branches were satisfied with AM on-time performance with 97.6% on the Middleborough/Lakeville Line and 94.7% on the Plymouth/Kingston Line rating it as average to very good, and mean ratings of 4.5 and 4.3. These were among the highest means for any service quality measure.

Performance was considered very good by 61.3% on the Middleborough/Lakeville Line, making it by far the highest very good percentage for any service quality measure. On the Plymouth/Kingston Line, only 50.2% rated AM on-time performance as very good, placing it behind several other measures. At the opposite extreme, AM on-time performance was rated as very poor by only 1.3% and 1.5% on the two branches. Overall these were much more favorable ratings than were given to any of the lines surveyed in 1993. In the final report on that survey it was noted that the on-time performance rankings of some lines had been affected by delays experienced on or shortly before the survey day.

3. Availability of Seating

Seating availability was rated as average or better by 78.4% of riders on the Middleborough/Lakeville Line, but by only 70.1% on the Plymouth/Kingston Line, reflecting the higher peak-period ridership on the latter line. The mean ratings on the two branches were 3.5 and 3.2, making seating one of the least satisfactory qualities on either branch. As would be expected, seating availability was rated more favorably on each line by riders boarding at the outermost stations than at stations closer to the peak load points.

Ratings of very good were given by 26.7% overall on the Middleborough/Lakeville Line and 19.8% on the Plymouth/Kingston Line. Ratings of very poor were given by 8.2% and 10.9%. Because of continued growth in ridership since the survey was conducted, most peak-period trains have become even more crowded, so satisfaction with seating availability is likely to have declined further.

4. Travel Time/Speed

Travel time/speed was rated as average or better by 93.5% of riders on the Middleborough/ Lakeville Line, and by 95.5% on the Plymouth/Kingston Line, with mean rankings of 4.0 and 4.1. These were in the mid-range of ratings for all service quality measures.

Ratings of very good were given by 34.0% on the Middleborough/Lakeville Line and 38.4% on the Plymouth/Kingston Line. Ratings of very poor were given by 1.8% and 1.4%. The percentages of very good ratings for travel/time speed on the Old Colony lines were significantly better than those for most of the lines in the 1993 survey. In the analysis of that survey, it was concluded that many passengers were comparing commuter rail with other mass transit alternatives rather than with driving, as the lines with the highest very good ratings for travel time/speed also had the lowest scheduled end-to end route speeds. High proportions of Old Colony riders were former users of other mass transit services, and would have used fairly recent experiences on those services as a basis of travel time comparisons. Because of the low level of transit dependency in the Old Colony service area, many potential riders who regarded Old Colony speeds as unsatisfactory compared with driving probably continued to drive, and were therefore not included in the survey sample.

5. Parking Availability

Parking availability ranked fifth in importance as a service quality measure among all riders on each Old Colony branch, but among passengers using park-and-ride access it ranked third or fourth. In general, passengers were more satisfied with parking availability than with either service frequency or seating availability. Parking availability was rated as average or better by 80.7% of riders on the Middleborough/ Lakeville Line and by 89.3% on the Plymouth/Kingston Line, with mean rankings of 3.9 and 4.2.

Ratings of very good were given to parking availability by 49.5% and 52.4% of riders on the two branches. These were among the highest percentages of very good given to any service quality measure on each line. At the other extreme, rankings of very poor were given by 12.1% on the Middleborough/Lakeville Line (the-second largest very poor ranking for any measure on that line) and by 4.9% on the Plymouth/Kingston Line. The seeming inconsistency of unusually large percentages both for very good and for very poor was a result of a mismatch between location of parking capacity and location of boarding demand. Passengers who had difficulty finding parking spaces at their preferred boarding locations would have viewed availability as very poor, but those

who never had problems finding spaces would have viewed availability as very good. For example, at Middleborough/Lakeville Station, which was one of the first to have reported parking capacity problems after Old Colony service resumed, 36% of passengers rated parking availability as very poor. Because of growth in ridership since the survey was conducted, satisfaction with parking availability for Old Colony service overall is likely to have declined.

6. PM On-Time Performance

On both Old Colony branches, the number of riders citing PM on-time performance as one of the most important service measures was only about half as great as the number citing AM on-time performance. In the AM most passengers are going to work, school or appointments, where they need to arrive at specific times. In the PM most riders are going home and consequences of late arrival are less important. Overall satisfaction with PM on-time performance was, however, about the same as with AM on-time performance. On both branches, 96.3% of riders rated PM on-time performance as average to very good, and the mean rating was 4.3.

PM on-time performance was considered very good by 52.9% on the Middleborough/ Lakeville Line, compared with 61.3% very good for AM on-time performance. On the Plymouth/Kingston Line the PM and AM very good ratings were much closer, at 51.1% and 50.2%. Ratings of very poor were given by only 0.9% and 0.7% on the two branches. As with AM performance, perceptions of PM performance were probably influenced disproportionately by recent experiences when the surveys were filled out.

7. Personal Safety at Station

Personal safety at station (labeled only personal safety on the summary tables) was rated as average or better by 95.8% of riders on the Middleborough/Lakeville Line and by 96.8% on the Plymouth/Kingston Line, with mean values of 4.1 and 4.2. It was considered very good by 39.9% and 44.5% respectively. At the opposite extreme, it was considered very poor by 1.4% and 0.9%. The lower personal safety rankings on the Middleborough/Lakeville were the result of the locations of a greater number of the stations on that line in urbanized areas that are perceived as less safe than suburban sites. Overall, however, both Old Colony branches had much higher percentages of very good ratings and much lower percentages of very poor ratings for personal safety than the lines surveyed in 1993.

8. Comfort of Ride

Comfort of ride was rated as average or better by 96.2% of riders on the Middleborough/Lakeville Line, and by 96.4% on the Plymouth/Kingston Line, with mean values of 4.2 on both branches. It was considered very good by 43.9% and 41.9%, respectively. At the opposite extreme, it was considered very poor by 0.9% and 1.1%. The percentages of very good for comfort of ride on the Old Colony lines were much higher than those of most of the lines surveyed in 1993, although several of the lines in

1993 had smaller percentages in the very poor category. The higher top-end ratings for the Old Colony lines were partly the result of the smooth ride provided by newly rebuilt track and by new or rebuilt rolling stock. In addition, high percentages of Old Colony riders had recently switched from other mass transit alternatives with which they could compare commuter rail, but most of the riders surveyed in 1993 would have had less recent experience with other alternatives.

9. Vehicle Security

Vehicle security was rated as average or better by 89.8% of riders on the Middleborough/Lakeville Line, and by 90.3% on the Plymouth/Kingston Line. The mean values of 3.7 and 3.8 were slightly below the averages of the means for all service quality measures combined.

Vehicle security was considered very good by only 26.2% on the Middleborough/ Lakeville Line and by only 27.6% on the Plymouth/Kingston Line. Only two or three service measures on each branch had smaller percentages in the very good category. At the opposite extreme 4.1% and 3.1% rated vehicle security as very poor. Although vehicle security ranked fairly low in importance among survey respondents, perceptions of inadequate vehicle security may be keeping away additional riders for whom the issue is more important. Vehicle security on both Old Colony branches had much higher percentages of very good and much lower percentages of very poor than any of the lines in the 1993 survey, however. Many of the Old Colony stations are in more isolated locations than typical stations on the older lines. Although this makes Old Colony stations more difficult to monitor for vandalism, it also makes them more difficult for vandals to get to.

10. Availability of Schedules

Availability of schedules was rated as average or better by only 81.3% of riders on the Middleborough/Lakeville Line, and by 86.7% on the Plymouth/Kingston Line. The mean values of 3.6 and 3.7 were below the averages of the means for all measures combined, just behind those of vehicle security.

Availability of schedules was considered very good by only 28.6% of riders on the Middleborough/Lakeville Line and by only 28.4% on the Plymouth/Kingston Line, only slightly better than the percentages for vehicle security. It was ranked as very poor by 7.3% and 5.0%, somewhat worse than vehicle security. CTPS passenger counts have found that about 95% of all Old Colony passengers have their inner trip ends at South Station. Schedules are readily available there, but none of the stations south of Braintree have on-site ticket offices. This makes it difficult for occasional or first-time riders to obtain up-to-date schedule information before starting trips into Boston. Among riders using Old Colony service less than one day a week 8.3% rated schedule availability as very poor. The ratings of schedule availability on the Old Colony lines were within the range observed on the older lines in 1993.

11. Station Condition/Cleanliness

In general, passengers on both Old Colony branches were satisfied with station condition/cleanliness, as 96.4% on the Middleborough/Lakeville Line and 98.2% on the Plymouth/Kingston Line rated it as average to very good. The mean ratings of 4.3 and 4.5 were among the highest means for any service quality measure.

Station condition/cleanliness was considered very good by 50.6% of riders on the Middleborough/Lakeville Line and by 57.9% on the Plymouth/Kingston Line. It was considered very poor by only 1.0% and 0.4%. Passengers boarding at Brockton Station alone gave almost half of the very poor ratings.

The generally high ratings for station condition/cleanliness should have been expected, since the stations had been open for slightly less than one year when the survey was conducted. The lines surveyed in 1993 had much lower ratings for this measure. It remains to be seen how long the Old Colony stations will retain their high ratings as the facilities age.

12. Availability of Tickets/Passes

Availability of tickets and passes was rated as average or better by more riders on both branches (88.6% and 89.5%, mean 3.9 on both lines) than was availability of schedules (81.3% and 86.7%, mean 3.6 and 3.7) even though schedules are supposed to be available at ticket sales outlets. Likewise, availability of tickets and passes was rated as very good by 38.4% on the Middleborough/Lakeville Line and by 40.0% on the Plymouth/Kingston Line, compared with only 28.6% and 28.4% for schedule availability. Availability of tickets and passes also had smaller very poor ratings (3.4% and 4.3%) than availability of schedules (7.3% and 5.0%). The 1993 survey also found much higher percentages of very good and lower percentages of very poor for ticket and pass availability than for schedule availability on all lines.

The lower ratings for schedule availability could be a result of independent ticket sales outlets having inadequate supplies, in which case the solution would be to provide outlets with more schedules and with better means of displaying them. Another reason for the different ratings would be that riders uncertain of schedules want information before going to stations, but tickets can always be purchased on board trains if necessary.

13. Helpfulness of Personnel

Helpfulness of personnel was rated as average or better by 97.3% of riders on the Middleborough/Lakeville Line, and by 97.6% on the Plymouth/Kingston Line, with mean values of 4.3 and 4.4. Helpfulness of personnel was rated as very good by 49.7% and 52.1%, and as very poor by only 1.0% and 0.7%. These were among the most favorable ratings for any service measure, but it was ranked only thirteenth out of fifteen in importance.

The ratings for helpfulness of personnel on both Old Colony branches were higher than those for all of the lines surveyed in 1993, even though this was one of the more favorably rated service measures in that survey. It is unclear whether the higher ratings in the Old Colony survey reflect a systemwide improvement in employee helpfulness over the intervening years, greater diligence in this area among recently hired train crews assigned to the Old Colony lines, or more recent experience of Old Colony riders with other transportation alternatives.

14. Explanation of Delays

Explanation of delays was one of the less satisfactory service qualities on both Old Colony branches, with only 76.5% on the Middleborough/Lakeville Line and 84.7% on the Plymouth/Kingston Line rating it as average or better. The mean values were 3.4 and 3.6. Only 21.8% and 26.8% of riders respectively rated explanation of delays as very good, placing it second or third lowest among all service measures. At the other extreme, 11.4% and 6.8% found explanation of delays to be very poor. It was, however ranked only fourteenth in importance of the 15 service quality measures, and it had the second-lowest number of riders rating it at all. These results suggest that although many passengers are curious as to the reasons that trains are delayed, having this information will not greatly affect their travel plans.

The generally high ratings for employee helpfulness but low ratings for explanation of delays appear inconsistent. The different ratings may have been given because passengers believed that the train crews themselves were not told the reasons for delays and were therefore not to blame for inadequate explanations.

Despite the poor showing, explanation of delays had much smaller percentages of very poor ratings and much higher percentages of very good ratings than any of the lines surveyed in 1993 had. It is unclear whether the differences reflect a systemwide improvement in explanation of delays or greater effort to keep Old Colony riders informed. It may also be that Old Colony riders had had fewer recent experiences with delays when they were surveyed.

15. Information by Telephone/Internet

On both Old Colony branches information by telephone/internet was rated by much smaller numbers of passengers than any other service quality measure. Largely because of this, it ranked last in importance of the 15 service quality measures. The low response rate suggests that many Old Colony riders had never tried to obtain service information by telephone or the Internet, and therefore had no opinions about the quality.

Among passengers that did rate information by telephone/Internet, 89.7% on the Middleborough/Lakeville Line and 90.4% on the Plymouth/Kingston Line thought it was average or better. The mean value on both lines was 3.8, placing it slightly lower than the average of the means for all service quality measures combined. Only 28.5%

and 30.7% on the respective branches found information by telephone/Internet to be very good, and 2.4% and 3.0% found it very poor.

The 1993 survey preceded the introduction of Internet information service, so the question on that survey pertained only to telephone information. This measure was rated by the smallest percentages of riders on each line, similar to the pattern in the Old survey. Telephone/Internet information was rated much more favorably in the Old Colony survey than was telephone information in the 1993 survey. There are no separate telephone numbers for Old Colony service. In both 1993 and 1998 commuter rail schedules showed numbers for both MBTA Customer Service and SmarTraveler. It is unclear to what extent the higher ratings for telephone/Internet service in the Old Colony survey were the result of adding Internet information as opposed to improvements in the quality of telephone information. (The address for the MBTA's web site does not appear on commuter rail schedules.)

Reasons for Using Old Colony Service

In the table the reasons are listed in the same order that they appear on the survey form. In the discussion below, they are listed in descending order of the percentages of riders that checked them. Comparisons with the results of the 1993 commuter rail survey are also included.

1. Avoid Driving/Traffic

The most common reason for using Old Colony service cited by riders on both branches (70.5% on the Middleborough/Lakeville Line and 75.2% on the Plymouth/ Kingston Line) was to avoid driving/traffic. This reason was only slightly more prevalent among riders who had formerly made the same trip entirely by driving (77%) than among riders who had formerly used modes other than driving or had not made the same trips (72%). This indicates that those that who formerly used other mass transit alternatives had also done so largely to avoid traffic. The latter finding is consistent with the finding of low transit dependency among the survey respondents.

Avoid driving/traffic was not one of the check-off choices offered on the 1993 survey form. Although it was the reason most often written in, it is not possible to make direct comparisons between its importance among Old Colony riders and among users of other lines. For most Old Colony passengers, driving to Boston or Cambridge would require use of the Southeast Expressway, which is the most heavily used arterial highway into the city from any direction. Therefore, Old Colony passengers have an unusually strong incentive to avoid driving.

2. Convenience

Convenience was the second most common reason for using Old Colony service, checked by 69.5% of riders on the Middleborough/Lakeville Line and 68.5% on the Plymouth/Kingston Line. This reason was less common among riders who formerly

drove all the way (61%) than among those who formerly used modes other than driving or had not made the same trips (71%). This suggests that many former auto users perceive Old Colony service as less convenient than driving but that other considerations weigh in favor of Old Colony in their travel decisions. Similar perceptions of the greater convenience of driving would be one reason that other travelers who continue to drive to Boston from the South Shore have not been attracted to Old Colony service.

In the 1993 survey, convenience was by far the most common reason selected for using commuter rail. It was chosen by 70% to 88% of the riders on each line. Many of these riders might have checked avoid traffic/driving if that had been included on the list, but selected convenience as the closest choice.

3. Speed/Travel Time

About half of all Old Colony riders (49.1% on the Middleborough/Lakeville Line and 52.9% on the Plymouth/Kingston Line) checked "Speed/travel time" as a reason for using the service. The slightly higher percentage on the latter line was partly a result of the greater average distance to limited-access highways from the origins served. Among riders who formerly drove all the way, speed/travel time was a much less common reason for choosing Old Colony service (37%) than it was among other riders (55%). Among a majority of travelers who continue to drive to Boston from the South Shore, the speed/travel time of doing so is likely also perceived as superior to that of Old Colony service.

In the 1993 survey speed/travel time was the second or third most common reason selected for using each commuter rail line. The percentages selecting varied widely by line, from 38% to 72%. This was largely a reflection of relative speeds of commuter rail and other alternatives in the same corridors.

4. Downtown Parking Cost/Availability

About one quarter of all Old Colony riders (26.1% on the Middleborough/Lakeville Line and 23.6% on the Plymouth/Kingston Line) checked downtown parking cost/availability as a reason for using the service. (In the summary tables it is listed only as parking cost/availability. This should not be confused with cost or availability of parking at Old Colony stations.) This reason was slightly more prevalent among riders who formerly drove all the way (28%) than among other riders (24%). As with the case of avoid driving/traffic, this indicates that Old Colony riders diverted from other transit modes had taken downtown parking cost/availability into account in their former travel decisions.

The relatively low percentage of former drivers citing this reason indicates that downtown parking cost and capacity constraints provided only moderate incentives for them to switch to Old Colony service. These incentives were evidently insufficient for trip-makers who have continued to drive.

Downtown parking cost/availability was not one of the check-off choices offered on the 1993 survey form. It was, however the second most common reason written in by riders who checked Other. The relative numbers of passengers writing in downtown parking cost/availability and avoid driving/traffic on the 1993 survey form was similar to the relative numbers checking these reasons on the Old Colony survey.

5. Inexpensive Way to Travel

Cost was not a major incentive for shifting to Old Colony service from other alternatives, as "inexpensive way to travel" was checked by only 17.2% of riders on the Middleborough/Lakeville Line and by 17.9% on the Plymouth/Kingston Line. The percent checking this reason was only slightly higher among riders who formerly drove all the way (19%) than among other riders (17%). Among riders who had shifted from private carrier buses, which generally had higher fares, 24% checked inexpensive way to travel as a reason for using Old Colony service. These responses were offset by diversions from the Red Line, on which fares were lower than those of Old Colony service. Some riders who would have preferred to continue using private carrier bus routes shifted to Old Colony service as a result of bus service cutbacks.

In the 1993 survey the most comparable choice was "Economy/cost." It was a much more important reason for using the rail lines in that survey, being checked by 41% to 51% of the riders on each line. Commuter rail fares did not change between the two surveys, but falling gasoline prices may have reduced the perceived difference in costs between driving and riding commuter rail. Because of increases in average income, transportation costs may have been of less concern to commuters in 1998 than they were in 1993.

6. Environmentally Responsible

Relatively few riders (15.9% on the Middleborough/Lakeville Line and 16.6% on the Plymouth/Kingston Line) checked "environmentally responsible" as a main reason for using Old Colony service. Concern with the environment varied by age group, with the highest rate being among riders aged 45-64 (19%) and the lowest among riders aged 18 to 24 (8%). These differences are consistent with the greater emphasis on environmental protection and fuel shortages during the late 1960s and early 1970s, when many of the riders now in the age 45 to 64 group would have been in high school or college.

Being environmentally responsible was of much greater concern to riders in the 1993 survey, being checked by 24% to 43% of the riders on every line. Riders included in that survey could have made their decisions to use commuter rail many years earlier, but most Old Colony riders had become commuter rail users no more than one year before they were surveyed. Among Old Colony riders who had formerly used other commuter rail lines, 24% checked environmentally responsible.

7. Only Transportation Available

Of the seven reasons for using Old Colony service listed on the survey form, "Only transportation available" was checked by the smallest numbers of riders (5.7% on the Middleborough/Lakeville Line and 3.9% on the Plymouth/Kingston Line). There is some apparent inconsistency between these results and those of the vehicle availability question, as one third of the riders who gave only transportation available as a reason for using Old Colony also reported that they had vehicles available for the trip. Most of these riders checked one or more additional reasons for using Old Colony service, so they may have meant that they did not have vehicles available every day. Comments of others indicated that they could have driven if necessary, but did not consider their vehicles to be in suitable condition for regular commuting.

The 1993 survey showed higher levels of dependence on commuter rail, with "Only transportation available" being checked as a reason for riding by 6% to 18% of the riders on each line. These higher rates were related both to lower proportions of riders with cars available and to lower availability of other mass transit alternatives. Vehicle availability rates in the Old Colony service area are likely to decline over time as riders decide not to replace second cars when they wear out. Reductions in private carrier bus service on the South Shore are also increasing the percentages of Old Colony riders with no other transportation available.

8. Other

Only 0.4% of riders on the Middleborough/Lakeville Line and 1.9% on the Plymouth/Kingston Line specified other reasons for using Old Colony service that were not variations of any of the seven reasons listed directly on the survey form. Of these, about half gave reasons that could be summarized as read or relax, with most of the rest giving reasons related to comfort. Small numbers reported riding to get work done or to socialize with other passengers. The 1993 survey did not have significant numbers of riders reporting that they used commuter rail for any reasons other than those listed or written in on the Old Colony surveys.

Old Colony Commuter Rail

1998 Passenger Survey

Customer Service Data and Reasons for Using Old Colony

Line: **Middleborough/Lakeville** **All Stations**

Expanded Results

Service Quality	Mean	Very Poor		Average		Very Good	Total	No Answer	Importance*
Station condition	4.3	1.0%	2.6%	13.5%	32.3%	50.6%	2,814	150	160
Parking availability	3.9	12.1%	7.1%	11.6%	19.6%	49.5%	2,669	295	507
Personal safety	4.1	1.4%	2.8%	21.4%	34.5%	39.9%	2,796	168	363
Vehicle security	3.7	4.1%	6.0%	31.7%	31.9%	26.2%	2,532	433	256
Availability of schedules	3.6	7.3%	11.4%	27.1%	25.6%	28.6%	2,759	206	175
Info by phone/Internet	3.8	2.4%	7.8%	30.7%	30.5%	28.5%	1,957	1,007	42
AM on-time performance	4.5	1.3%	1.2%	7.1%	29.2%	61.3%	2,816	148	715
PM on-time performance	4.3	0.9%	2.8%	11.1%	32.3%	52.9%	2,705	260	371
Helpfulness of personnel	4.3	1.0%	1.7%	14.3%	33.3%	49.7%	2,774	191	143
Explanation of delays	3.4	11.4%	12.1%	28.6%	26.1%	21.8%	2,385	579	86
Availability of tix/passes	3.9	3.4%	8.0%	20.7%	29.5%	38.4%	2,686	279	128
Comfort of ride	4.2	0.9%	2.9%	14.9%	37.4%	43.9%	2,817	148	289
Availability of seating	3.5	8.2%	13.4%	24.5%	27.2%	26.7%	2,834	130	523
Frequency of service	3.3	6.5%	18.1%	31.3%	27.3%	16.8%	2,733	231	807
Travel time/speed	4.0	1.8%	4.7%	18.6%	40.9%	34.0%	2,826	138	584

*The number of respondents who indicated that this service quality measure was one of the three most important to them. Many respondents checked no measures while others checked more than three.

Reasons for Using Old Colony Service	Number of Riders	Percent of Riders†
Convenience	2,061	69.5%
Speed/Travel time	1,458	49.1%
Avoid driving/traffic	2,090	70.5%
Inexpensive way to travel	511	17.2%
Parking cost/availability	774	26.1%
Environmentally responsible	472	15.9%
Only transportation available	169	5.7%
Other	13	0.4%
TOTAL RIDERS	2,964	

† Note: Percent of riders may total to more than 100 percent due to multiple responses.

CTPS

11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Customer Service Data and Reasons for Using Old Colony

Line: **Plymouth/Kingston** **All Stations**

Expanded Results

Service Quality	Mean	Very Poor		Average		Very Good	Total	No Answer	Impor-tance*
Station condition	4.5	0.4%	1.5%	7.6%	32.7%	57.9%	3,476	103	132
Parking availability	4.2	4.9%	5.8%	10.5%	26.4%	52.4%	3,355	224	629
Personal safety	4.2	0.9%	2.3%	16.2%	36.1%	44.5%	3,407	172	298
Vehicle security	3.8	3.1%	6.6%	29.0%	33.7%	27.6%	3,171	408	233
Availability of schedules	3.7	5.0%	8.2%	27.4%	30.9%	28.4%	3,383	196	169
Info by phone/Internet	3.8	3.0%	6.7%	28.7%	31.0%	30.7%	2,392	1,187	42
AM on-time performance	4.3	1.5%	3.8%	10.5%	34.0%	50.2%	3,446	133	874
PM on-time performance	4.3	0.7%	2.9%	9.1%	36.1%	51.1%	3,366	213	424
Helpfulness of personnel	4.4	0.7%	1.6%	11.1%	34.4%	52.1%	3,394	185	114
Explanation of delays	3.6	6.8%	8.5%	24.4%	33.5%	26.8%	3,019	560	69
Availability of tix/passes	3.9	4.3%	6.3%	20.9%	28.6%	40.0%	3,338	241	154
Comfort of ride	4.2	1.1%	2.4%	14.2%	40.3%	41.9%	3,469	110	359
Availability of seating	3.2	10.9%	19.0%	26.1%	24.2%	19.8%	3,495	83	817
Frequency of service	3.3	7.7%	17.2%	31.8%	29.0%	14.3%	3,412	167	943
Travel time/speed	4.1	1.4%	3.1%	17.6%	39.5%	38.4%	3,482	97	749

*The number of respondents who indicated that this service quality measure was one of the three most important to them. Many respondents checked no measures while others checked more than three.

Reasons for Using Old Colony Service	Number of Riders	Percent of Riders†
Convenience	2,454	68.5%
Speed/Travel time	1,893	52.9%
Avoid driving/traffic	2,694	75.2%
Inexpensive way to travel	643	17.9%
Parking cost/availability	844	23.6%
Environmentally responsible	596	16.6%
Only transportation available	142	3.9%
Other	68	1.9%
TOTAL RIDERS	3,579	

† Note: Percent of riders may total to more than 100 percent due to multiple responses.

CTPS

11/24/99

9. Egress from the Train

Information Contained

Each Egress from the Train report consists of four tables on one page. It is important to note that in contrast to the tables in the previous chapters, which present survey results by boarding station, the tables in this chapter and the following one present results by alighting station.

Information in Egress Mode from the Train Table

The first table, Egress Mode from the Train shows for the selected group of passengers the number and percent leaving their alighting stations by each of eight modes listed in survey question 7a. These were: Walked directly to your destination; Transfer to the subway and then exit at _____; Transfer to a bus; Transfer to another commuter rail line; Transfer to a shuttle van; Be picked up in a private car; Drive or ride in car parked at or near station, and Other. The table includes the responses for all of these, although the table headings have been abbreviated. (The line labeled MBTA buses also includes transfers, if any, to Regional Transit Authority and local private-carrier routes, excluding school or employer-sponsored shuttles. Transfers to intercity private-carrier buses were re-classified as Other in this table.) To avoid double counting in this table, passengers making two or more transfers to reach their final destinations are included only under the first mode transferred to after alighting from an Old Colony train.

The second part of the first table shows egress times of passengers reporting each mode of egress, from question 7b. The responses are combined into various ranges of minutes, with the percent of riders with egress times in each range shown, as well as the mean values of all responses.

Question 7 was intended to determine passengers' direct modes of egress from their Old Colony alighting stations, but some passengers whose egress trips required use of more than one mode either tried to list them all or showed transfers to bus routes that could not have been reached without intermediate rapid transit connections. In such cases, the results were edited to show the direct connections as the egress modes, but the identities of routes subsequently transferred to were retained in the database as well.

In general, egress times reported by passengers in the Old Colony survey, as in previous transportation surveys, were approximations, as few passengers have timed their egress trips precisely. The wording of the egress time question was "How long will it take to get from this train to your destination?" The desired response was the length of time between the Old Colony alighting station and the final destination. Based on comparisons of the times given with the destinations shown, it was evident

that some passengers misinterpreted the question. Some apparently gave their total travel times from origin to destination, some gave their times from boarding station to destination, and some gave times for the Old Colony portion of the trip alone. At the opposite extreme, some passengers who transferred to other commuter rail lines, rapid transit lines, or buses, included only the line-haul time on the connecting vehicle and not waiting time or additional egress time from alighting station on the connecting service to final destination.

In order to obtain useful information, an attempt was made to edit egress time responses that were clearly too short or too long for the destination and egress mode specified. Responses far above or below the range given on other surveys showing trips to the same destination zone by the same egress mode were flagged for further inspection. Times so fast that they could not possibly have been achieved with the headways and normal running time of the connecting transit service specified were adjusted upwards. Unusually long times (such as 45 minutes to reach a building across the street from the alighting station) were adjusted downwards. Some passengers may in fact have stopped for breakfast or other errands between alighting from trains and arriving at their ultimate destinations, but such self-imposed delays were not of interest for survey purposes.

Passengers alighting at South Station have a greater range of alternatives available for egress than do passengers making interzone trips. Therefore, egress modes for these two groups are discussed in separate subsections below. Their egress times are also discussed separately.

Information in Rapid Transit Transfers Table

The second table in the Egress from the Train report, Rapid Transit Transfers, separates passengers that transferred from Old Colony trains to rapid transit trains by rapid transit exit station. Some passengers who reported Park Street or Downtown Crossing as their exit stations also reported destinations in question 8b or bus routes in question 7a that indicated that they had transferred from the Red Line to the Green Line or Orange Line. In such cases, the rapid transit exit stations responses were edited to show the station nearest the destination or the station at which the bus connection would have been made rather than Red Line transfer station.

Information in Bus/Shuttle Transfers Table

The third table in the Egress from the Train report, Bus/Shuttle Transfers separates passengers that transferred from Old Colony trains to buses or shuttle vans by MBTA bus route, private-carrier, or other provider. Question 7a provided space for bus and van users to specify which ones they used, but not all respondents did so. This information was added to the database if the identity of the transfer route was evident from the alighting station and final destination specified. The analysis of the results of the third table is combined with that of bus and shuttle van transfers in the first table.

Bus and van routes shown in the third table include both those with direct transfers from Old Colony trains and those reached by intermediate rapid transit connections. They also include intercity bus routes included in the Other line in the first table. Therefore, the total of entries in this table usually exceeds the combined entries for MBTA Bus and for Shuttle/van in the first table. The percentages shown are percentages of transfers to individual bus or van routes out of transfers to all specified routes, without distinction between buses and vans.

In this table, all numbers are those of MBTA bus routes in effect in 1998. "CT3" is also an MBTA route. "BAT" refers to Brockton Area Transit buses. "BCBS" refers to shuttle vans from Braintree Station to the Quincy office of Blue Cross & Blue Shield. "BDC" and "WTC" refer to shuttle vans from South Station to the Boston Design Center and the World Trade Center in South Boston. "EMP" refers to unspecified employer-sponsored shuttles. "UMAS" refers to free shuttle buses from JFK/UMass station to the University of Massachusetts Boston Campus. "SCH" refers to unspecified school-sponsored shuttles.

"CTW" and "VTC" refer to Concord Trailways and Vermont Transit intercity buses to points in northern New England. "PPB" refers to Peter Pan Bus Lines intercity buses. All three of these companies serve the South Station bus terminal.

Information in Commuter Rail Transfers Table

The fourth table in the Egress from the Train report, Commuter Rail Transfers, separates passengers that transferred from Old Colony trains to other commuter rail lines by the line transferred to. For passengers continuing only as far as Back Bay or Ruggles, the line transferred to is identified in the summary table as Any Line to Back Bay or Any Line to Ruggles. In addition to lines connecting directly with Old Colony Lines at South Station, the table includes North Side commuter rail lines used in completing Old Colony trips. Most passengers who transferred to North Side lines did not specify their intermediate links, so they were counted only as transfers to commuter rail lines in the egress mode summaries. The analysis of the results of the fourth table is combined with that of commuter rail transfers in the first table.

Mode of Egress - South Station Trips

Walking

Among Old Colony passengers alighting at South Station, walking was by far the most common mode of egress, used by 61.0% of Middleborough/Lakeville Line riders and 66.8% of Plymouth/Kingston Line riders. The combined figure from the two branches was 64.4%. In contrast, on the five South Side lines operating in 1993, walking accounted for an average of 78% of all egress trips from South Station, with a range among lines of 74% to 84%.

South Station is the only Boston station on the Old Colony lines, but all of the other South Side lines except the Fairmount Line also stop at Back Bay, and all except the Fairmount and Framingham/Worcester Lines serve Ruggles. Direct alightings at Back Bay or Ruggles by passengers going to destinations beyond convenient walking distance of South Station result in higher percentages of walking egress trips among South Station alightings than would occur if that were the only Boston station. Although the Fairmount Line does not serve Back Bay, Readville Station is also served by Franklin Line trains and Fairmount Station is about one half mile from Hyde Park Station which is served by Attleborough/Stoughton and Franklin trains. As a result, walking egress from Fairmount Line trains at South Station in 1973 was only slightly below the average for other South Side lines. Among passengers alighting at South Station, Back Bay, and Ruggles combined in 1993, walking egress was used by 69%, or only slightly more than the proportion of Old Colony riders walking from South Station alone.

Further Analysis of Impact of Number of Boston Stations on Ridership

In the 1993 survey, Back Bay accounted for 37% of the combined alightings at South Station, Back Bay and Ruggles, and Ruggles accounted for 2%. Nearly half of the riders alighting at Back Bay and Ruggles reached their final destinations by means other than walking, however. Overall, 22% of riders alighting at the three Boston Stations walked to their destinations from Back Bay or Ruggles.

Old Colony passengers can travel to Back Bay or Ruggles by transferring at South Station to outbound trains on one of the routes going to those stations, but there is no deliberate coordination of schedules. When the survey was conducted, times between scheduled arrivals of Middleborough/Lakeville trains and next departures of trains to Back Bay in the A.M. peak ranged from five to 21 minutes, but intervals to Ruggles ranged from six to 40 minutes. Plymouth/Kingston Line trains generally had closer connections, with waits of three to 12 minutes for Back Bay connections and nine to 26 minutes for Ruggles connections. The survey results showed few Old Colony passengers going to Back Bay or Ruggles via trains that required waits of more than 20 minutes. With longer connecting times, it would have been faster to go from South Station to Back Bay or Ruggles via a combination of the Red and Orange Lines.

Of the passengers alighting from Middleborough/Lakeville trains at South Station, 4.3% transferred to other commuter rail trains to Back Bay, but none went to Ruggles. From the Plymouth/Kingston Line, 5.1% went to Back Bay and 0.5% to Ruggles. Most of these riders indicated final destinations within walking distance of Back Bay or Ruggles, but some may have completed their trips by making second transfers to MBTA buses or other vehicles.

The overall percentage of Old Colony riders transferring to other commuter rail trains and continuing to destinations within walking distance of Back Bay or Ruggles was only about one fifth as large as the percentage of South Side riders in the 1993 survey alighting at these stations and walking to their destinations. Some Old Colony riders

going to destinations near Back Bay or Ruggles used egress modes from South Station other than transferring to other commuter rail lines, however. Based on the distributions of downtown Boston destinations of Old Colony passengers compared with those of South Side riders in 1993, it appears that the inability to serve Back Bay directly cost the Old Colony lines about 700 to 1,000 inbound riders a day at 1998 ridership levels. Some of these potential riders currently use Attleborough/Stoughton Line trains, so they are not lost to the commuter rail system as a whole.

Rapid Transit

The second most common egress mode for Old Colony passengers alighting at South Station was transferring to rapid transit. This was used by 30.6% of Middleborough/ Lakeville Line riders and 24.5% of Plymouth/Kingston Line riders there, or an average of 27%. The difference between the transfer rates for the two lines was mostly attributable to different distributions of destinations rather than differences in methods of reaching the same destinations. In the 1993 survey only 19.6% of South Side riders alighting at South Station transferred to rapid transit, but this was partly because of the availability of rapid transit connections at Back Bay and Ruggles as well. For alightings at the three stations combined in 1993, the transfer rate was 27%, or the same as the average in the Old Colony survey.

The only rapid transit line connecting directly with the Old Colony lines at South Station is the Red Line. Passengers going to the Orange Line or the Green Line can take the Red Line to Downtown Crossing or Park Street or walk from South Station to one of the stations on those lines. Access to the Blue Line from South Station requires either two transfers or a long walk to Aquarium station. Most of the passengers using rapid transit for egress did not specify their egress modes beyond their final rapid transit alighting stations. Many of the destination addresses shown were beyond typical walking distances of the alighting stations, however.

Half of the riders using rapid transit egress (49.8% on the Middleborough/ Lakeville Line and 48.8% on the Plymouth/ Kingston Line) left the rapid transit system at a Red Line Station. The two most common alighting stations, each accounting for 10% to 12% of the rapid transit transfers from each branch, were Kendall and Park Street (excluding passengers transferring to the Green Line at Park Street). The only other stations accounting for over 5% of rapid transit alightings were Charles/MGH and Harvard, each with 5% to 7% from each branch.

The second-largest group of rapid transit egress passengers (29.1% on the Middleborough/Lakeville Line and 27.8% on the Plymouth/Kingston Line) left the rapid transit system at a Green Line Station. Alighting locations were more dispersed than those on any of the other lines, but Copley and Arlington were the two most common ones.

The third-largest group of rapid transit egress passengers (18.0% on the Middleborough/Lakeville Line and 16.8% on the Plymouth/Kingston Line) left the

rapid transit system at an Orange Line Station. These totals includes passengers alighting at Haymarket or North Station who did not indicate whether they used the Orange Line or the Green Line to get there. The relative importance of Orange Line alighting stations varied between the two branches, with only North Station and State attracting over 3% of the total rapid transit alightings from either one. Few of the passengers going to North Station were transferring to North Side commuter rail trains; most had final destinations within walking distance of North Station.

Blue Line stations accounted for the smallest group of rapid transit exits, at about 3% on each branch. The two most common Blue Line alighting stations were Airport and Bowdoin. Most of those going to Airport were airport workers, not airline passengers.

Commuter Rail

The third most common egress mode for Old Colony passengers alighting at South Station was transferring to another commuter rail line. This was used by 5.5% of Middleborough/Lakeville Line riders and 6.4% of Plymouth/Kingston Line riders there. Among those making such transfers, the vast majority (81% and 83% on the two branches) were going to Back Bay Station on the next available train going there. Most of these had final destinations within walking distance of Back Bay, but a few either transferred to the Orange Line or buses there or walked to Copley Station and transferred to the Green Line.

Among Plymouth/Kingston Line riders, Ruggles Station was the second most common commuter rail transfer destination, with 8% of those making such transfers, but no Middleborough/Lakeville Line respondents took commuter rail trains to Ruggles. As detailed above, this was consistent with the closer connections available from Plymouth/Kingston Line trains to outbound trains stopping at Ruggles in the A.M. peak.

Fewer than 20 riders from either Old Colony Branch transferred to other South Side commuter rail trains at South Station to go to stations beyond Back Bay or Ruggles. Only 16 riders from both branches combined were shown as transferring to any North Side commuter rail line, including four that transferred to the Fitchburg Line by taking the Red Line to Porter Square.

All Other Egress Modes

Under 3% of the passengers alighting from either Old Colony Branch at South Station specified egress modes other than walking, rapid transit, or transfer to another commuter rail line. The largest subgroup from each branch (1.3% from the Middleborough/Lakeville Line and 0.9% from the Plymouth/Kingston Line) transferred to an MBTA bus. The absolute total of such transfers from each branch was under 40, not including passengers transferring to buses after taking a rapid transit or commuter rail line from South Station. More than two thirds of the direct bus transfers from the two branches combined (46 of 66) were to MBTA buses going to destinations in

the industrial sections of South Boston (Routes 3, 6. and 7). Again, it should be noted that the Egress Mode tables include only direct transfers, but that the Bus/Shuttle Transfers tables include transfers from intermediate links.

The next-largest group, accounting for 16 egress trips from each branch, was employer-sponsored shuttle vans. The World Trade Center and Boston Design Center shuttles to South Boston work locations accounted for the majority of these trips (25 of 32). (An explanation of all of the codes used in the Bus/Shuttle Transfers tables appears in the first section of this chapter.)

To reach JFK/UMass from Old Colony trains at the time of the survey, it was necessary to transfer to the Red Line at one of the three common stations. Therefore, transfers to the free UMass shuttle buses appear, if at all, only in the Bus/Shuttle Transfers tables. Of 20 riders transferring to the Red Line at South Station to go to UMass, only one specified a second transfer to the free shuttle, but many of the others probably also used this alternative. In addition to the free shuttles, however, MBTA bus routes 8 and 16 also provided connections which could have been used by passholders at no extra charge. It is also possible to walk from the station to the campus.

Only 10 riders from both branches combined were picked up in private autos at South Station, and most of these were making non-repetitive trips. Another 11 riders took taxis from South Station, also mostly for non-repetitive trips.

No other egress mode was used by as many as 10 riders from both lines combined. Eight passengers left South Station by bicycle. Eight transferred to intercity buses and four to Amtrak trains to travel to destinations outside Massachusetts. Three passengers took ferries (which departed at some distance from South Station) and two tourists took sightseeing vehicles. No passengers drove or rode away from South Station in cars that had been parked at or near there.

Mode of Egress - Interzone Trips

Alightings South of Braintree

At most stations south of Braintree on both Old Colony branches, the number of inbound alightings and the survey response rates were both too low to provide precise information on modes of egress from individual stations. On the Middleborough/ Lakeville Line, 56% of passengers alighting at all stations combined south of Braintree walked to their final destinations. The next-largest group, 27%, transferred to MBTA or BAT buses, or to shuttle vans provided by employers or schools. The only station with MBTA bus connections was Holbrook/Randolph. Connections to BAT buses were possible at Campello, Brockton, and Montello, but the only ones reported were at Brockton. No other egress mode was used by more than five alighting passengers. On the Plymouth/Kingston Line, the survey results accounted for only four riders (compared with a count of 11) alighting before Braintree. Of the four, three walked to their destinations and one was met at the station.

Alightings at Braintree

At Braintree Station, all survey respondents alighting from Middleborough/Lakeville trains walked to their destinations, but among passengers alighting from Plymouth/Kingston trains, 60% transferred to the Red Line and only 19% walked. This difference was largely because all trains on the former line also stopped at Quincy Center, but most trains on the latter line stopped only at Braintree. Passengers with final destinations near Quincy Center or transferring to buses starting there were forced to use the Red Line as an intermediate link if their trains did not stop at Quincy Center. For passengers transferring to the Red Line to go to points north of Quincy Center, Braintree was apparently the less attractive transfer point when a choice was available. The transfer path is longer at Braintree and the path and platform are both mostly open to the weather at Braintree but mostly enclosed at Quincy.

In addition to Red Line transfers and walk-outs, 19% of Plymouth/Kingston Line passengers transferred to private shuttle vans. The majority of van transfers were made by students going to Archbishop Williams High School in Braintree. There may also have been some students going there from the Middleborough/Lakeville Line, but the train that would have arrived at Braintree at the right time had a low survey response rate for alightings there. Some additional details on egress modes at Braintree are included in the discussion of interzone destinations in chapter 10.

Alightings at Quincy Center

At Quincy Center, 46% of the passengers alighting from Middleborough/Lakeville trains and 52% of those alighting from Plymouth/Kingston trains transferred to the Red Line. (Because of the relatively small number of total Plymouth/Kingston train alightings there, the difference in the percentages of Red Line transfers was insignificant.) Walking was the second most common mode of egress from both branches, with 39% of Middleborough/Lakeville alightings and 47% of Plymouth/Kingston alightings. There were no responses from Plymouth/Kingston Line passengers using any other egress modes at Quincy Center, but among Middleborough/Lakeville riders 9% transferred to various MBTA bus routes and 5% to employer-sponsored shuttle vans. (Similar percentages from the Plymouth/Kingston Line would have equaled a total of only about five alightings, so there may have been some that were missed in the survey.) Some additional details on egress modes at Quincy Center are included in the discussion of interzone destinations in chapter 10.

Egress Times - South Station Trips

After adjusting for evident errors in the responses, average egress times from South Station by all modes combined were very similar for passengers from the two Old Colony branches, at 12.9 minutes from the Middleborough/Lakeville Line and 13.2 minutes from the Plymouth/Kingston Line. Further details on egress times by mode appear below.

Walking

Mean times for walking, by far the most common egress mode, were close for the two branches, at 9.4 minutes from the Middleborough/Lakeville Line and 9.5 from the Plymouth/Kingston Line. Over 93% of the walking trips from both lines combined took 15 minutes or less, and under 0.2% (eight trips) took over 30 minutes. Nearly one third of all walking egress trips had reported times of five minutes or less. These results indicate that at typical walking speeds, very few passengers walked more than one mile from South Station, and that most walked even shorter distances.

Rapid Transit

Mean egress times were close for passengers from the two branches using rapid transit egress, at 21.1 and 21.2 minutes. The higher mean time for rapid transit egress compared with walking egress was a result both of very limited use of rapid transit for trips of five minutes or less (2.2% and 2.5% on the two branches) and of much heavier use of rapid transit for trips longer than 20 minutes (32.8% and 36.2% on the two branches). Including time to enter and leave stations and to wait for and ride trains, most rapid transit trips that could be completed in five minutes or less would save little or no time compared with walking directly from South Station. Conversely, most rapid transit egress trips longer than 20 minutes go to destinations further from South Station than most people would be willing to walk.

Commuter Rail

Mean times for the third most common egress mode, transferring to another commuter rail line, differed more between the two branches, at 27.9 minutes for the Middleborough/Lakeville Line and 19.2 minutes for the Plymouth/Kingston Line. This was mostly a result of the shorter average waiting time from Plymouth/Kingston Line trains for connections to Back Bay Station, where the majority of commuter rail egress trips from both branches were going. In addition, the percentage of commuter rail transfer egress trips going to stations further away than Back Bay was slightly higher on the Middleborough/Lakeville Line.

Most passengers going to Back Bay reported their total times from alighting at South Station to final destination, as intended, but some showed only train running times to Back Bay Station. For consistency, the latter responses were adjusted to include wait times between scheduled arrival of the Old Colony trains specified and the next scheduled trains departing for Back Bay, and estimated walking times from Back Bay station to the destinations indicated.

Bus

Average egress times by MBTA buses were longer than average walking times but shorter than average rapid transit or commuter rail egress times from the Middleborough/Lakeville Line, at 17.1 minutes. Average bus egress times from the

Plymouth/Kingston Line exceeded the averages for all three of the more common modes, at 22.1 minutes, however. The latter figure was the result of a relatively high proportion of passengers transferring to express bus routes for suburban destinations. Excluding these, the most common bus destinations from both Old Colony branches were on the routes connecting directly with commuter rail lines at South Station and going to points in South Boston. In-vehicle times for most such bus trips would have exceeded those for commuter rail trips to Back Bay, but the combined frequencies of all the South Boston bus routes would have provided shorter average waiting times. Also, most passengers alighting from buses in South Boston were closer to their final destinations than passengers alighting from trains at Back Bay. The longest express bus trips were shorter than the longest commuter rail transfer trips.

Other

Egress times in the next-largest category, Other, averaged 12.9 and 9.3 minutes on the two branches. Among the egress modes included in this category were transferring at South Station to intercity trains or buses. The surveyed passengers making such trips needed up to six hours more to reach their final destinations, but for purposes of the egress time summaries, their trips are treated as though they ended at South Station. The expanded survey results show a total of only 12 of these riders from both branches combined. Most intercity trips would not be repeated frequently by the same individuals, but on any given day there would probably be some passengers making such trips.

Small numbers of passengers who reported their destinations as Logan Airport in several of the egress categories including Other were apparently catching flights, but most did not indicate their final destinations. For purposes of egress time summaries, their trips are treated as though they ended at Logan.

Shuttle Van, Pick Up, and Park-and-Ride

Average egress times for passengers transferring to employer-sponsored shuttle vans at South Station were similar for the two branches, at 18.2 and 17.3 minutes. The majority of these were going to destinations in South Boston. This explains the similarity with the average bus egress time from the Middleborough/Lakeville Line (17.1 minutes) which was also predominated by South Boston trips.

The number of survey responses from passengers picked up in private automobiles at South Station was too small to provide useful information about egress times for such trips. Most of the responses were from infrequent riders. No respondents left South Station by driving or riding in cars that had been parked there.

Egress Times - Interzone Trips

Alightings South of Braintree

At most stations south of Braintree on both Old Colony branches, the number of inbound alightings and the survey response rates were both too low to provide useful information on egress times from individual stations. On the Middleborough/ Lakeville Line, the average egress time for the 56 passengers alighting at all stations south of Braintree combined was 10.2 minutes. There were no egress times over 20 minutes via any mode. Among those using the most common mode, walking, there were no egress times over 15 minutes. Passengers transferring to MBTA or BAT buses had the highest average egress time (16.6 minutes), with 66% between 16 and 20 minutes. This high average was apparently more a reflection of waiting times for connections than of trip lengths. Among all other alighting passengers at these stations, there was a single 20-minute egress trip via an unspecified mode.

On the Plymouth/Kingston Line, the survey results accounted for only four riders alighting south of Braintree. None of these had egress times longer than 20 minutes.

Alightings at Braintree

At Braintree and Quincy Center, passengers had more choices of egress modes than at stations south of Braintree, and average egress times were higher. For Middleborough/ Lakeville Line passengers alighting at Braintree, the mean egress time was 16.0 minutes and the only egress mode was walking. The average was pulled up by a group of students walking 30 to 35 minutes to Archbishop Williams High School instead of using the shuttle van. Otherwise, there were no reported walking times above 10 minutes.

For Plymouth/Kingston Line passengers alighting at Braintree, the mean egress time was slightly higher at 17.4 minutes, and five egress modes were reported. Passengers transferring to the Red Line had the highest mean egress time, at 20.6 minutes. The average was pulled up by trips to JFK/UMass and by trips to Quincy Center that included a second transfer to an MBTA bus. The mean walking egress time, at 9.5 minutes, was lower than that from the Middleborough/Lakeville Line, with the longest walk being about 25 minutes.

The only other egress mode used by more than two riders was private shuttle vans. For these, the mean egress time was 15.8 minutes, with the average being pulled up by trips to destinations in North Quincy.

Alightings at Quincy Center

For Middleborough/Lakeville Line passengers alighting at Quincy Center, the mean egress time was 13.4 minutes. The most common means of egress, transferring to the Red Line, also had the highest mean time, at 18.7 minutes. The average was pulled up by trips to JFK/UMass, especially those involving second transfers there to MBTA buses

or UMass shuttle buses. Walking, the second most common egress mode, had a mean average egress time of only 5.8 minutes, probably because of the availability of other modes to reach more distant destinations.

Transfers to MBTA buses, the third most common egress mode, had a mean egress time of 19.5 minutes. Long waiting times for connections between some train and bus trips pulled the average up. Passengers transferring to shuttle vans had mean egress times of 14.7 minutes, with most of the trips going to North Quincy office buildings.

Only two inbound Plymouth/Kingston Line trains stopped at Quincy Center. Egress trips were about equally divided between walking and Red Line transfers, with no other modes reported. The mean walking egress time was slightly below that from Middleborough/Lakeville Line trains, at 5.1 minutes, but the mean rapid transit egress time was slightly higher, at 20.6 minutes. Most of the rapid transit transfer passengers were going to destinations in North Quincy office buildings but reported times varied, at least in part because of differences in distances of work locations from North Quincy Station.

Old Colony Commuter Rail

1998 Passenger Survey

Egress from the Train

Line: **Middleborough/Lakeville** **South Station**

Expanded Results

Egress Mode from the Train:

Egress Time (minutes):

	Number of Riders	Percent of Riders	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	1,635	61.0%	9.4	32.2%	41.3%	21.3%	3.4%	1.8%	0.1%
Rapid Transit	820	30.6%	21.1	2.2%	14.2%	24.4%	26.4%	21.5%	11.3%
MBTA Bus	36	1.3%	17.1	0.0%	39.4%	18.7%	19.4%	22.4%	0.0%
Commuter Rail	148	5.5%	27.9	0.9%	14.6%	14.5%	21.2%	30.9%	17.9%
Shuttle/van	16	0.6%	18.2	0.0%	26.1%	22.3%	20.8%	30.8%	0.0%
Pick up	3	0.1%	30.0	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
Park-and- ride	0	0.0%							
Other	22	0.8%	12.9	35.0%	6.9%	30.6%	18.3%	9.3%	0.0%
TOTAL	2,678	100.0%	14.2	20.6%	31.0%	21.9%	11.9%	10.0%	4.5%
No Answer	39								

Rapid Transit Transfers:

Exit Station	Number of Riders	Pct. of Transfers
Kendall	88	10.7%
Park	83	10.1%
Charles/MGH	55	6.7%
Harvard	50	6.1%
Copley	36	4.4%
Arlington	34	4.1%
Downtown Crossing	29	3.5%
State	26	3.2%
Government Center	23	2.8%
Kenmore	23	2.8%
Brigham Circle	22	2.7%
Central	22	2.7%
North Station	22	2.7%
Back Bay	18	2.2%
Broadway	18	2.2%
Longwood	17	2.1%
Sullivan Square	17	2.1%
Haymarket	15	1.8%
Longwood/Hospitals	15	1.8%
Malden Center	14	1.7%
Porter	14	1.7%
Hynes Convention Ctr.	13	1.6%
Airport	12	1.5%
JFK/UMass	12	1.5%
Other	126	15.4%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
7	14	26.9%
6	10	19.2%
BDC	6	11.5%
EMP	6	11.5%
3	4	7.7%
459	4	7.7%
CT3	4	7.7%
WTC	4	7.7%
VTC	3	5.8%
117	2	3.8%
554	2	3.8%
93	2	3.8%
UMAS	2	3.8%
112	1	1.9%
PPB	1	1.9%

Commuter Rail Transfers:

Line	Number of Riders	Pct. of Transfers
Any Line to Back Bay	119	80.4%
Franklin	14	9.5%
Rockport/Newburyport	6	4.1%
Fitchburg	5	3.4%
Framingham/Worcester	2	1.4%
Needham	2	1.4%
Haverhill	1	0.7%

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Old Colony Commuter Rail

1998 Passenger Survey

Egress from the Train

Line: **Plymouth/Kingston** **South Station**

Expanded Results

Egress Mode from the Train:

	Number of Riders	Percent of Riders
Walk	2,248	66.8%
Rapid Transit	825	24.5%
MBTA Bus	30	0.9%
Commuter Rail	217	6.4%
Shuttle/van	16	0.5%
Pick up	7	0.2%
Park-and- ride	0	0.0%
Other	21	0.6%
TOTAL	3,366	100.0%
No Answer	17	

Egress Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	9.5	33.2%	40.3%	18.6%	5.7%	1.9%	0.3%
Rapid Transit	21.2	2.5%	11.0%	25.3%	24.9%	26.0%	10.2%
MBTA Bus	22.1	0.0%	22.6%	20.8%	14.6%	30.4%	11.6%
Commuter Rail	19.2	3.2%	20.0%	29.2%	27.9%	12.1%	7.5%
Shuttle/van	17.3	0.0%	40.4%	16.0%	0.0%	43.6%	0.0%
Pick up	14.5	0.0%	40.5%	29.7%	29.7%	0.0%	0.0%
Park-and- ride							
Other	9.3	32.4%	52.0%	8.0%	7.7%	0.0%	0.0%
TOTAL	13.2	23.2%	31.7%	20.9%	12.0%	8.9%	3.3%

Rapid Transit Transfers:

Exit Station	Number of Riders	Pct. of Transfers
Kendall	96	11.6%
Park	95	11.5%
Harvard	44	5.3%
Charles/MGH	43	5.2%
North Station	34	4.1%
Broadway	31	3.8%
Downtown Crossing	27	3.3%
Longwood/Hospitals	27	3.3%
Copley	26	3.2%
Central	25	3.0%
Arlington	23	2.8%
JFK/UMass	23	2.8%
Sullivan Square	23	2.8%
Government Center	21	2.5%
Hynes Convention Ctr.	21	2.5%
Kenmore	19	2.3%
Alewife	17	2.1%
Brigham Circle	16	1.9%
Haymarket	15	1.8%
Ruggles	13	1.6%
State	13	1.6%
Back Bay	12	1.5%
Fenway	10	1.2%
Museum of Fine Arts	10	1.2%
Other	122	14.8%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
7	15	32.6%
WTC	9	19.6%
BDC	6	13.0%
504	5	10.9%
6	4	8.7%
104	3	6.5%
32	3	6.5%
PPB	3	6.5%
10	2	4.3%
39	2	4.3%
501	2	4.3%
505	2	4.3%
70	2	4.3%
CT3	2	4.3%
11	1	2.2%
47	1	2.2%
553	1	2.2%
CTW	1	2.2%
EMP	1	2.2%

Commuter Rail Transfers:

Line	Number of Riders	Pct. of Transfers
Any Line to Back Bay	180	82.9%
Any Line to Ruggles	17	7.8%
Attleboro/Stoughton	7	3.2%
Framingham/Worcester	5	2.3%
Needham	5	2.3%
Fitchburg	2	0.9%
Middleborough/Lakeville	1	0.5%
Rockport/Newburyport	1	0.5%

Old Colony Commuter Rail

1998 Passenger Survey

Egress from the Train

Line: **Middleborough/Lakeville** **Multiple Stations**

Expanded Results - Alightings South of Braintree

Egress Mode from the Train:

Egress Time (minutes):

	Number of Riders	Percent of Riders	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	31	55.5%	7.5	65.4%	13.6%	21.0%	0.0%	0.0%	0.0%
Rapid Transit	0	0.0%							
MBTA Bus	12	21.5%	16.6	0.0%	34.3%	0.0%	65.7%	0.0%	0.0%
Commuter Rail	0	0.0%							
Shuttle/van	3	5.4%	15.0	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Pick up	5	9.0%	9.8	52.0%	0.0%	48.0%	0.0%	0.0%	0.0%
Park-and- ride	1	1.8%	10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Other	5	9.0%	16.3	0.0%	0.0%	73.3%	26.7%	0.0%	0.0%
TOTAL	56	100.0%	10.7	40.8%	17.4%	24.9%	16.9%	0.0%	0.0%
No Answer	2								

Rapid Transit Transfers:

Exit Station	Number of Riders	Pct. of Transfers

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
238	4	26.7%
240	4	26.7%
BAT	4	26.7%
SCH	3	20.0%

Commuter Rail Transfers:

Line	Number of Riders	Pct. of Transfers

Old Colony Commuter Rail

1998 Passenger Survey

Egress from the Train

Line: **Plymouth/Kingston** **Multiple Stations**

Expanded Results - Alightings South of Braintree

Egress Mode from the Train:

	Number of Riders	Percent of Riders
Walk	3	68.9%
Rapid Transit	0	0.0%
MBTA Bus	0	0.0%
Commuter Rail	0	0.0%
Shuttle/van	0	0.0%
Pick up	1	23.0%
Park-and- ride	0	0.0%
Other	0	0.0%
TOTAL	4	100.0%
No Answer	0	

Egress Time (minutes):

	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	14.4	0.0%	34.4%	0.0%	65.6%	0.0%	0.0%
Pick up	5.0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL	12.2	23.0%	26.5%	0.0%	50.5%	0.0%	0.0%

Rapid Transit Transfers:

Exit Station	Number of Riders	Pct. of Transfers

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers

Commuter Rail Transfers:

Line	Number of Riders	Pct. of Transfers

Old Colony Commuter Rail

1998 Passenger Survey

Egress from the Train

Line: **Middleborough/Lakeville** **Braintree Station**

Expanded Results

Egress Mode from the Train:

	Number of Riders	Percent of Riders
Walk	18	98.8%
Rapid Transit	0	0.0%
MBTA Bus	0	0.0%
Commuter Rail	0	0.0%
Shuttle/van	0	0.0%
Pick up	0	0.0%
Park-and- ride	0	0.0%
Other	0	0.0%
TOTAL	18	100.0%
No Answer	0	

Egress Time (minutes):

Mean	0-5	6-10	11-15	16-20	21-30	Over 30
16.0	0.0%	69.3%	0.0%	0.0%	0.0%	30.7%
16.0	0.0%	69.3%	0.0%	0.0%	0.0%	30.7%

Rapid Transit Transfers:

Exit Station	Number of Riders	Pct. of Transfers

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers

Commuter Rail Transfers:

Line	Number of Riders	Pct. of Transfers

Old Colony Commuter Rail

1998 Passenger Survey

Egress from the Train

Line: **Plymouth/Kingston** **Braintree Station**

Expanded Results

Egress Mode from the Train:

Egress Time (minutes):

	Number of Riders	Percent of Riders	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	28	18.5%	9.5	28.9%	48.7%	12.1%	0.0%	10.3%	0.0%
Rapid Transit	91	60.1%	20.6	9.1%	5.5%	36.0%	2.4%	39.7%	7.3%
MBTA Bus	1	0.7%	10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Commuter Rail	0	0.0%							
Shuttle/van	29	19.2%	15.8	27.2%	39.0%	7.5%	0.0%	7.5%	18.8%
Pick up	2	1.3%	10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Park-and- ride	0	0.0%							
Other	0	0.0%							
TOTAL	151	100.0%	17.4	16.0%	22.0%	25.3%	1.4%	27.2%	8.0%
No Answer	0								

Rapid Transit Transfers:

Exit Station	Number of Riders	Pct. of Transfers
North Quincy	30	33.0%
JFK/UMass	13	14.3%
Quincy Adams	9	9.9%
Andrew	5	5.5%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
SCH	19	63.3%
BCBS	10	33.3%
222	4	13.3%
225	1	3.3%
236	1	3.3%

Commuter Rail Transfers:

Line	Number of Riders	Pct. of Transfers

Old Colony Commuter Rail

1998 Passenger Survey

Egress from the Train

Line: **Middleborough/Lakeville** **Quincy Center Station**

Expanded Results

Egress Mode from the Train:

Egress Time (minutes):

	Number of Riders	Percent of Riders	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	66	38.6%	5.8	72.0%	22.4%	5.7%	0.0%	0.0%	0.0%
Rapid Transit	79	46.2%	18.7	0.0%	19.8%	36.8%	22.8%	11.8%	8.7%
MBTA Bus	15	8.8%	19.5	0.0%	14.1%	46.2%	0.0%	39.7%	0.0%
Commuter Rail	0	0.0%							
Shuttle/van	9	5.3%	14.7	0.0%	28.5%	21.1%	50.3%	0.0%	0.0%
Pick up	2	1.2%	10.0	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Park-and- ride	0	0.0%							
Other	0	0.0%							
TOTAL	171	100.0%	13.4	28.6%	21.7%	23.9%	13.4%	8.3%	4.1%
No Answer	0								

Rapid Transit Transfers:

Exit Station	Number of Riders	Pct. of Transfers
North Quincy	46	58.2%
JFK/UMass	25	31.6%
Andrew	3	3.8%
Wollaston	3	3.8%
Boylston	2	2.5%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers
EMP	9	37.5%
216	4	16.7%
211	3	12.5%
230	3	12.5%
CT3	3	12.5%
210	2	8.3%
220	2	8.3%
222	2	8.3%

Commuter Rail Transfers:

Line	Number of Riders	Pct. of Transfers

Old Colony Commuter Rail

1998 Passenger Survey

Egress from the Train

Line: **Plymouth/Kingston** **Quincy Center Station**

Expanded Results

Egress Mode from the Train:

Egress Time (minutes):

	Number of Riders	Percent of Riders	Mean	0-5	6-10	11-15	16-20	21-30	Over 30
Walk	19	47.1%	5.1	77.4%	22.6%	0.0%	0.0%	0.0%	0.0%
Rapid Transit	21	52.1%	20.6	0.0%	0.0%	26.3%	36.5%	37.2%	0.0%
MBTA Bus	0	0.0%							
Commuter Rail	0	0.0%							
Shuttle/van	0	0.0%							
Pick up	0	0.0%							
Park-and- ride	0	0.0%							
Other	0	0.0%							
TOTAL	40	100.0%	13.4	36.1%	10.6%	14.0%	19.5%	19.8%	0.0%
No Answer	0								

Rapid Transit Transfers:

Exit Station	Number of Riders	Pct. of Transfers
North Quincy	19	90.5%
JFK/UMass	2	9.5%

Bus/Shuttle Transfers:

Route	Number of Riders	Pct. of Transfers

Commuter Rail Transfers:

Line	Number of Riders	Pct. of Transfers

10. Destination Locations and Activities

Information Contained

Each Destination Locations and Activities report consists of one table, showing the destination cities and towns of passengers in a selected group. This information is based on survey question 8b. Most city and town definitions in the database correspond with municipal boundaries, but Boston, Cambridge, Somerville, and Brookline are subdivided into neighborhoods, as shown in figure 10-1. Locations outside Massachusetts are combined at state level only.

In the Destination Locations and Activities report destinations are arranged in descending order of volume, with a maximum of 25 different destinations. If there are more than 25 destinations in the group, those producing fewer alightings than the one in 25th place are combined as Other.

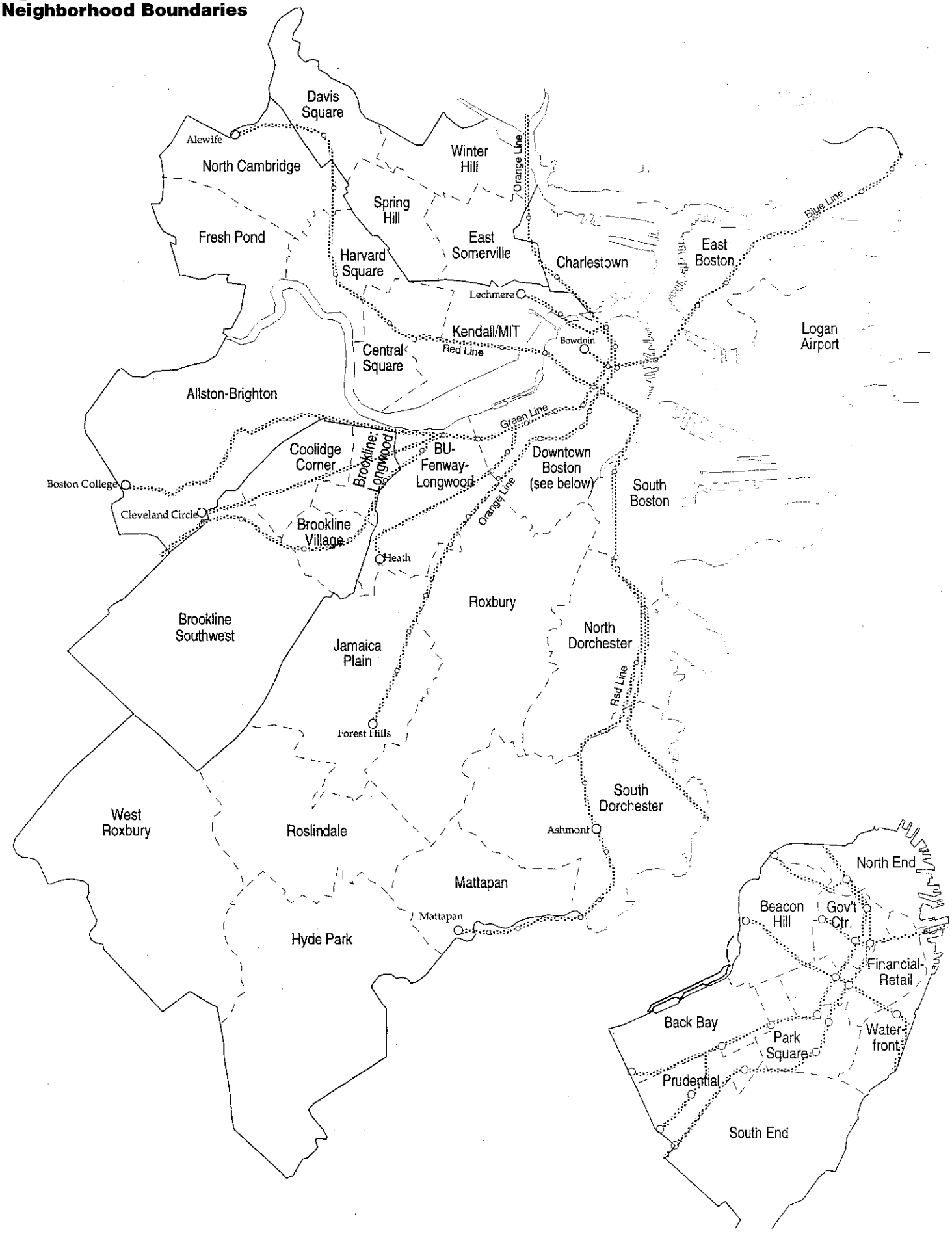
In addition to showing the number of riders and the percentage of the group total accounted for by each destination, the table includes a breakdown of passengers going to each destination by activity at the end of the trip, based on survey question 8a. The choices given on the survey were the same as those given for activity prior to the start of the trip. These were: At home; At school; At work; At a store; At the doctor or other personal business; At a work related errand or meeting; At a restaurant, or social or recreational activity; and Other. The table includes the responses for all of these, although some of the table headings have been abbreviated.

Summary of Findings

On both Old Colony branches, the survey showed that the vast majority of final destinations of inbound trips were in Boston or Cambridge. On the Middleborough/ Lakeville Line, 89.2% of the riders were destined for one of those cities. On the Plymouth/Kingston Line the proportion was 93.4%. Nevertheless, both branches had lower proportions of Boston or Cambridge destinations than the older South Side commuter rail lines had in the 1993 survey. On those lines, Boston and Cambridge accounted for 96% to 98% of all destinations. North Side Lines had somewhat lower concentrations of Boston and Cambridge trips, ranging from 88% to 95%. but only the Fitchburg Line was under 91%.

Trips with destinations outside Boston or Cambridge include both interzone trips between pairs of outlying stations on the same line and trips passing through Boston or Cambridge to destinations beyond. On the Old Colony Lines, the below-average proportions of Boston and Cambridge trips were attributable more to interzone trips than to trips passing through Boston. On the Middleborough/Lakeville Line, 7.4% of

Figure 10–1
Neighborhood Boundaries



all riders were making interzone trips (excluding trips alighting before South Station but continuing to Boston by other means of transportation.) On the Plymouth/ Kingston Line the proportion was 4.9%. For comparison, the 1993 survey showed 0.8% of South Side riders and 4.3% of North Side riders making interzone trips.

Trips to destinations beyond Boston or Cambridge accounted for 3.6% of riders on the Middleborough/Lakeville Line, but for only 1.7% on the Plymouth Kingston Line. For comparison, the proportion from all South Side lines combined in the 1993 survey was 2.3%. All of these figures are imprecise because of the small numbers of surveys involved.

Middleborough/Lakeville Line Boston and Cambridge Trips

Destination Locations

In the expanded survey results, the Middleborough/Lakeville Line had 2,632 trips ending in Boston or Cambridge, accounting for 89% of the inbound riders on the line. Of these riders, 2,068, or 70% of the branch total, had destinations within Boston Proper. (Boston Proper is defined here as the area bordered approximately by Massachusetts Avenue, the Charles River, Boston Harbor, Fort Point Channel, and the Southeast Expressway.) Destinations in sections of Boston outside Boston Proper were next, with 13% of the total (382). Cambridge, with 6% of the riders (182), accounted for fewer destinations than the total ending short of Boston (218), but more than the number with destinations beyond Boston or Cambridge (106).

By far, the largest group of passengers (904 or 30.6% of the branch total) had destinations in the Financial-Retail District. This was also the most common destination for passengers on all of the commuter rail lines surveyed in 1993. On South Side Lines in that survey, the Financial-Retail District accounted for 29% to 32% of riders on the lines running via Back Bay, but for 39% of destinations on the Fairmount Line.

The Waterfront was the second most common destination on the Middleborough/ Lakeville Line, with 12.6% of the destinations (374). In the 1993 survey, the Waterfront share ranged from 10% to 12% on the lines running via Back Bay and for 17% on the Fairmount Line. No other individual Boston Proper neighborhood attracted more than 10% of riders from the Middleborough/Lakeville Line, but Government Center was only slightly below 10% (287). This was somewhat higher than the Government Center shares on the Back Bay Lines, which ranged from 6% to 8%, but lower than that of the Fairmount Line's 12%.

The Financial/Retail District and the Waterfront are the two neighborhoods with the most convenient walking access from South Station, and 94% of the riders going to destinations within them reported that they walked. In contrast, 40% of the riders going to Government Center used one or more rapid transit lines to complete their trips.

Only 110 passengers with Boston or Cambridge destinations (4%), transferred to other South Side commuter rail lines and rode to Back Bay to complete their trips. Most of these passengers had destinations in the Back Bay or Prudential neighborhoods. For comparison, in 1993 Back Bay alightings accounted for 41% of the combined Back Bay and South Station alightings on lines serving both stations.

Destinations in Boston outside Boston Proper were most heavily concentrated in the neighborhoods closest to Boston Proper, with 87% of them being in South Boston, BU/Fenway/Longwood, North Dorchester, or Charlestown. (This compares with 92% to the same neighborhoods from South Side lines in 1993.) South Boston alone ranked ahead of all but the top three Boston Proper destinations, with 5% of all inbound trips (157). Of the Boston neighborhoods outside Boston Proper, only South Boston had a significant share of its passengers arrive by walking from South Station (63%).

All passengers going to destinations in North Dorchester (37) transferred to the Red Line and exited at JFK/UMass. Of these, 68% transferred at Quincy Center and continued north on the Red Line. The remainder transferred at South Station and rode south on the Red Line. North Dorchester was the only Boston neighborhood with more than one survey response reporting access via the Red Line from Quincy Center.

Of riders going to Cambridge, slightly over half (97) had destinations in the Kendall Square/MIT neighborhood, which is the nearest part of Cambridge to Boston Proper. It ranked ahead of three of the Boston Proper neighborhoods: Beacon Hill, the North End, and the South End. Almost all of the passengers going to all parts of Cambridge transferred to the Red Line at South Station.

Destination Activities

Among riders destined for Boston or Cambridge, the vast majority (2,181, or 83%) were going from home to work. Overall, these riders accounted for 74.5% of all Middleborough/Lakeville Line passengers. In the 1993 survey, trips from home to work destinations in Boston or Cambridge accounted for 87% of trips on all South Side lines combined, ranging from 84% to 87% on individual lines. The lower percentage on the Middleborough/Lakeville Line is a result both of much higher than average interzone ridership and of higher than average non-work travel to Boston and Cambridge. Some of the latter resulted from the inclusion on the Old Colony survey of a separate category for work-related travel. In the 1993 survey at least some of such trips were probably reported as work trips. The Middleborough/Lakeville Line also had an unusually high proportion of Social/Recreational trips, at 2.2% of total riders. In the 1993 survey, these were included in the category "Other" which accounted for 2.3% of all South Side riders, but included all trips not to work, school, or shopping. Recently opened rail lines often attract unusually high levels of recreational riding until the novelty wears off.

Among the top 10 Boston and Cambridge destination neighborhoods, which accounted for 90% of the destinations in those cities, the proportions of home-to-work trips ranged

from 59% to 96%, but exceeded 70% in all except the BU-Fenway-Longwood neighborhood, where several colleges and universities are located. Home-to-school trips accounted for 18% of the destinations there, but in absolute terms this was only 22 riders. The neighborhoods in the top 10 where home-to-work trips accounted for the highest shares of destinations were South Boston (96%) and Financial-Retail (93%).

Trips to school were the second-largest category of trips to Boston or Cambridge on the Middleborough/Lakeville Line, but were far behind trips to work, at just under 5% overall. Most of these school trips (124 of 127) began at home. North Dorchester was slightly ahead of BU/Fenway/Longwood in total home-to school trips, at 25. These were mostly going to UMass-Boston, with a few to Boston College High School, and they accounted for 68% of the trips to North Dorchester. Among neighborhoods with any school trips from the Middleborough/Lakeville Line, North Dorchester is the nearest to the South Shore.

No trip purpose other than home-to-work or home-to-school accounted for over 2.5% of overall trips to Boston and Cambridge. Other purposes exceeded 2.5% in some individual neighborhoods, but in most such cases the absolute numbers were small.

Plymouth /Kingston Line Boston and Cambridge Trips

Destination Locations

In the expanded survey results, the Plymouth/Kingston Line had 3,329 trips ending in Boston or Cambridge, accounting for 93% of the inbound riders on the line. Of these riders, 2,675, or 75% of the branch total, had destinations within Boston Proper (as defined in the Middleborough/Lakeville discussion above). Destinations in sections of Boston outside Boston Proper were next, with 14% of the total (518). Cambridge, with 5% of the riders (190), accounted for more destinations than either the total ending short of Boston (176), or the number with destinations beyond Boston or Cambridge (60).

Among trips to Boston or Cambridge, the importance of destinations in the three sub-groups was similar on the two Old Colony branches. Boston Proper was slightly more important and the other two slightly less important on the Plymouth/Kingston Line than on the Middleborough/Lakeville Line.

By far, the largest group of Plymouth/Kingston passengers (1,210 or 34.0% of the branch total) had destinations in the Financial/Retail District. This was slightly higher than the 30.6% on the Middleborough/Lakeville Line. (Additional comparisons with lines in the 1993 survey appear in the Middleborough/Lakeville Line discussion.)

The Waterfront was the second most common destination on the Plymouth/Kingston Line, with 15.3% of the destinations (545). (Again, this was slightly higher than the 12.6% on the Middleborough/Lakeville Line.) The only other individual Boston Proper neighborhood that attracted more than 10% of riders from the Plymouth/Kingston Line, was Government Center which was only slightly above 10% (359).

Walking was the mode of egress of 96% of the riders going to the Financial/Retail District and 94% of those going to the Waterfront from the Plymouth/Kingston Line, similar to the pattern on the other branch. Only 33% of Plymouth/Kingston Line riders going to Government Center used rapid transit connections, compared with 40% of Middleborough/Lakeville riders. This difference may have resulted from differences in specific destinations within Government Center.

Among Plymouth/Kingston passengers with Boston or Cambridge destinations, 172 (5%), transferred to other South Side commuter rail lines and rode to Back Bay to complete their trips. Most of these passengers had destinations in the Back Bay or Prudential neighborhoods. This was similar to the pattern among Middleborough/ Lakeville riders.

Destinations in Boston outside Boston Proper were most heavily concentrated in the neighborhoods closest to Boston Proper, with 89% of them being in South Boston, BU-Fenway-Longwood, North Dorchester, or Charlestown. (This compares with 86% to the same neighborhoods from the Middleborough/Lakeville Line.) South Boston alone ranked ahead of all but the top three Boston Proper destinations, with 6% of all inbound trips (204). Of the Boston neighborhoods outside Boston Proper, only South Boston had a significant share of its passengers arrive by walking from South Station (73%).

All 43 Plymouth/Kingston Line passengers going to destinations in North Dorchester transferred to the Red Line. Of those specifying an alighting station, all but one exited at JFK/UMass. Among North Dorchester riders, 30% transferred at Braintree and 5% at Quincy Center and continued north on the Red Line. The other 65% transferred at South Station and rode south on the Red Line. All 15 inbound trains on this branch stopped at Braintree, but only two also stopped at Quincy Center. In contrast, on the Middleborough/Lakeville Line all 12 inbound trains stopped at Quincy Center, but only five also stopped at Braintree. On that branch, 68% of transfers for JFK/UMass were made at Quincy, 32% at South Station, and none at Braintree.

The patterns found above imply that given a choice, a majority of Old Colony riders going to North Dorchester find a transfer at Quincy more convenient than doubling back from South Station. The Braintree transfer also avoids doubling back, but compared with Quincy Center it involves a longer walk and a transfer path and platform that are less sheltered. North Dorchester was the only Boston neighborhood with more than one survey response from either branch reporting access via the Red Line from Quincy Center. The planned Old Colony Station at JFK/UMass will provide direct access to North Dorchester.

Of riders going to Cambridge, 57% (109) had destinations in the Kendall Square/MIT neighborhood, which is the nearest part of Cambridge to Boston Proper. As on the Middleborough/Lakeville Line, it ranked ahead of three of the Boston Proper neighborhoods: Beacon Hill, the North End, and the South End. Almost all of the passengers going to all parts of Cambridge transferred to the Red Line at South Station.

Destination Activities

Among riders destined for Boston or Cambridge, the vast majority (2,869, or 87%) were going from home to work. Overall, these riders accounted for 80.8% of Plymouth/ Kingston Line passengers. This was a higher concentration than that on the Middleborough/Lakeville Line (74.5%) both because the Plymouth/Kingston Line had fewer riders either making interzone trips or continuing further than Boston or Cambridge, and because the Plymouth/Kingston Line had proportionally fewer non-work trips among riders going to Boston or Cambridge. In absolute terms, the Plymouth/ Kingston Line carried a slightly larger number of non-home-to-work trips to these cities (444 versus 427).

Among the top 10 Boston and Cambridge destination neighborhoods, which accounted for 91% of the destinations in those cities, the proportions of home-to-work trips ranged from 60% to 94%, but exceeded 75% in all except the BU-Fenway-Longwood neighborhood, where several colleges and universities are located. Home-to-school trips accounted for 19% of the destinations there, but in absolute terms this was only 26 riders. The neighborhoods in the top 10 where home-to-work trips accounted for the highest shares of destinations were Financial-Retail (94%), and South Boston (93%)

Trips to school were the second-largest category of trips to Boston or Cambridge on the Plymouth/Kingston Line, but were far behind trips to work, at 4.3% overall. Most of these school trips (138 of 142) began at home. North Dorchester was slightly ahead of BU/Fenway/Longwood in total home-to-school trips, at 31. These were divided about equally between UMass-Boston and Boston College High School, and they accounted for 72% of the trips to North Dorchester. Among neighborhoods with any school trips from the Plymouth/Kingston Line, North Dorchester is the nearest to the South Shore.

No trip purpose other than home-to-work or home-to-school accounted for over 2.5% of overall trips to Boston and Cambridge. Other purposes exceeded 2.5% in some individual neighborhoods, but in most such cases the absolute numbers were small.

Middleborough/Lakeville Line Interzone Trips

In the expanded survey results, the Middleborough/Lakeville Line had 218 non-Boston interzone trips, of which the city of Quincy accounted for 138 destinations (64%). Brockton had the second-largest number of interzone destinations with 34 (16%). The latter figures are low because of a lack of survey responses from passengers alighting at the Brockton stations from some trains, especially in the afternoon and evening. Control counts indicate that the number of Brockton destinations was closer to 50. Braintree was the third-largest interzone destination with 21 (10%).

The large share of interzone destinations in Quincy was attributable both to the number of trip attractions in that city and to the availability of connecting services to reach destinations beyond walking distance of Quincy Center Station. Of the 138 riders with Quincy destinations, 66, or slightly fewer than half, reported walking as the final egress

mode. The next-largest group was 49 transferring to the Red Line, of which 46 went to North Quincy and three to Wollaston. (Another 30 passengers transferred to the Red Line to go to destinations in Boston, with most of these alighting at JFK/UMass Station.) Twelve Quincy-destination passengers transferred to various MBTA bus routes, and another nine transferred to private vans going to work locations in North Quincy.

All Middleborough/Lakeville Line trains that stop at Braintree also stop at Quincy Center. All 18 passengers alighting from trains on this line at Braintree walked to their final destinations, indicating that among those needing to change to the Red Line Quincy Center was a more convenient transfer point. Another three passengers with destinations on the north side of Braintree transferred at Quincy Center to MBTA bus Route 230. This bus also stops at Braintree Station, but the Old Colony train used by these passengers does not.

Travel to work was the single most important purpose of non-Boston interzone trips, at 66%, with most of these trips beginning at home. This compares with 84% of Boston or Cambridge trips destined for work.

Plymouth/Kingston Line Interzone Trips

In the expanded survey results, the Plymouth/Kingston Line had 176 non-Boston interzone trips, of which the city of Quincy accounted for 116 destinations (66%). This was slightly higher than the proportion of Middleborough/Lakeville Line interzone riders destined for Quincy, even though most Plymouth/Kingston trains do not stop at Quincy Center. Braintree was the second-largest interzone destination with 51 (29%). Only nine interzone passengers were found going to other destinations, including four alighting south of Braintree. The latter total was slightly low because of low responses from short trips, but control counts showed only 11 alightings south of Braintree all day. The Plymouth/Kingston Line has less non-residential development close to stations than the Middleborough/Lakeville Line, providing lower potential for interzone travel.

All inbound Plymouth/Kingston Line trains stop at Braintree, but only two also stop at Quincy Center. Of the 116 passengers destined for Quincy, 38 alighted at Quincy Center and 78 at Braintree. Of the latter, 68 transferred to the Red Line to complete their trips and 10 transferred to private shuttle vans. Of those transferring to the Red Line, 30 went to North Quincy, 28 to Quincy Center, and 10 to Quincy Adams. Therefore, more than half would have had to transfer even if their trains had stopped at Quincy Center. Among passengers transferring to the Red Line from trains that stopped at both Braintree and Quincy Center, only those going to Quincy Adams transferred at Braintree; those going to North Quincy all transferred at Quincy Center. This is consistent with the results from Middleborough/Lakeville trains stopping at both Red Line stations, indicating that when given a choice riders prefer to transfer at Quincy Center. (The transfer path at Quincy Center is shorter and more sheltered.)

Among the 51 passengers alighting at Braintree Station and having final destinations in Braintree, 27 walked to their final destinations, 13 transferred to school vans, eight were

picked up in private cars, and two transferred directly to MBTA buses. One passenger with a Braintree destination transferred to the Red Line to Quincy to connect there with an MBTA bus that does not go to Braintree Station.

In addition to Quincy passengers transferring to the Red Line at Braintree, 18 passengers transferred there to go to Boston, with most of these alighting at JFK/UMass and none going beyond Andrew. Two other passengers transferred from Plymouth/Kingston trains at Quincy Center to go to JFK/UMass. Four passengers transferred from Plymouth/Kingston trains at Braintree to go to Quincy Center to connect with buses to Weymouth.

Travel to work was the single most important purpose of non-Boston interzone trips, at 60%, with most of these trips beginning at home. This compares with 87% of Boston or Cambridge trips destined for work.

Middleborough/Lakeville Line Trips to Destinations Beyond Boston or Cambridge

The 106 destinations of Middleborough/Lakeville Line passengers beyond Boston or Cambridge were scattered among 24 cities, towns, and neighborhoods, but of these only 12 had more than one survey response each. In the expanded results, the destinations with more than one response accounted for 77% . Only two of these destinations attracted more than 10 riders each. These were Medford (13) and Malden (12). The next-largest destinations were Somerville: Davis Square (7), Newton (6) and Brookline: Longwood (6).

Of the passengers destined for points beyond Boston or Cambridge, only 52% were traveling from home to work, compared with 83% of those going to Boston or Cambridge and 61% of those making interzone trips. The lower proportion of work trips going beyond Boston is more a reflection of the inconvenience of using commuter rail for repetitive trips to these destinations than of the convenience for non-work trips.

Among the passengers going to destinations beyond Boston, 62% specified that they used rapid transit or the Green Line in completing their trips. This included all of those going to the top four destinations and 42% of those going to other points. Most of these passengers had to make at least two transfers after alighting from the Old Colony trains, however. Only 13% of Middleborough/Lakeville Line passengers traveling beyond Boston transferred directly to other commuter rail lines at South Station. Another 10% transferred to North Side commuter rail lines at North Station. Most of these probably used the Orange or Green Lines as an intermediate link, but they are not included in the rapid transit transfer figures above.

Plymouth/Kingston Line Trips to Destinations Beyond Boston or Cambridge

The 60 destinations of Plymouth/Kingston Line passengers beyond Boston or Cambridge were scattered among 25 cities, towns, and neighborhoods, but of these only seven had more than one survey response each. In the expanded results, the seven

destinations with more than one response accounted for 48% of the trip ends. Only two of these destinations attracted more than four riders each. These were Newton (7) and East Somerville (5).

Of the passengers destined for points beyond Boston or Cambridge, 65% were traveling from home to work, compared with 87% of those going to Boston or Cambridge and 60% of those making interzone trips.

Among the passengers going to destinations beyond Boston, 53% used rapid transit or the Green Line in completing their trips. This included all of those going to Brookline and Somerville and 41% of those going to other points. Most of these passengers had to make at least two transfers after alighting from the Old Colony trains. The proportion of passengers traveling beyond Boston by transferring to other commuter rail lines at South Station was slightly higher on the Plymouth/Kingston Line than on the Middleborough/Lakeville Line (18% versus 13%), but the absolute numbers were about the same (10 versus 13). Less than 2% of Plymouth/Kingston riders going beyond Boston transferred to North Side commuter rail lines at North Station.

One passenger making a non-repetitive trip from Plymouth to Brockton in the midday transferred to a Middleborough/Lakeville train at South Station. This was the only station served by both of the trains used. This made a very indirect trip, but no other public transportation alternative for travel between the origin and destination would have been more direct.

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Middleborough/Lakeville** **All Stations**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Boston: Financial-Retail	904	30.6%		0.8%	95.9%	0.3%	1.4%	0.4%	0.6%	0.6%
Boston: Waterfront	374	12.6%	2.1%	2.7%	75.4%	0.4%	3.7%		6.7%	8.9%
Boston: Govt. Center	287	9.7%	1.4%	3.6%	87.5%	1.3%	2.9%		2.8%	0.5%
Boston: South Boston	157	5.3%	0.8%	1.5%	97.0%					0.7%
Boston: Park Square	142	4.8%		6.3%	84.6%	4.2%	3.8%		1.1%	
Quincy	138	4.7%	7.8%	1.7%	83.8%		2.1%	1.3%	3.4%	
Boston: Fenway	121	4.1%	3.5%	17.9%	58.3%	13.3%	2.6%		1.2%	3.3%
Boston: Back Bay	107	3.6%		12.4%	76.0%	4.3%	3.9%	1.1%	1.1%	1.1%
Boston: Prudential	106	3.6%	2.1%	7.0%	83.8%				2.6%	4.4%
Cambridge: Kendall/MIT	97	3.3%		1.6%	92.4%	1.6%	3.2%		1.3%	
Boston: Beacon Hill	70	2.4%		7.9%	78.0%	5.7%	2.2%		1.7%	4.5%
Boston: North End	44	1.5%		3.8%	66.7%	21.0%	3.0%		5.5%	
Cambridge: Harvard Sq.	41	1.4%		6.1%	90.3%				3.7%	
Boston: N. Dorchester	37	1.3%		67.3%	32.7%					
Brockton	34	1.1%	28.7%	11.9%	45.0%				6.7%	7.8%
Boston: South End	26	0.9%			86.5%	13.5%				
Cambridge: Central Sq.	23	0.8%	11.0%	7.9%	67.2%		13.9%			
Braintree	21	0.7%	10.6%	75.5%		13.8%				
Cambridge: North Cambridge	20	0.7%	18.3%	16.8%	64.9%					
Boston: Charlestown	19	0.6%		15.5%	84.5%					
Boston: Logan Airport	16	0.5%			82.7%					17.3%
Medford	13	0.4%			100.0%					
Malden	12	0.4%			100.0%					
Boston: Allston/Brighton	10	0.3%			100.0%					
Holbrook	9	0.3%	13.2%		43.4%		43.4%			
Other	129	4.4%	25.8%	9.0%	43.5%	5.5%	6.0%		3.9%	6.4%
TOTAL	2,956	100.0%	2.8%	5.4%	82.6%	2.1%	2.4%	0.2%	2.2%	2.3%
Unknown	9									

CTPS
11/24/99

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Middleborough/Lakeville** **Multiple Stations**

Expanded Results - Trips to Boston or Cambridge

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Boston: Financial-Retail	904	34.3%		0.8%	95.9%	0.3%	1.4%	0.4%	0.6%	0.6%
Boston: Waterfront	374	14.2%	2.1%	2.7%	75.4%	0.4%	3.7%		6.7%	8.9%
Boston: Govt. Center	287	10.9%	1.4%	3.6%	87.5%	1.3%	2.9%		2.8%	0.5%
Boston: South Boston	157	6.0%	0.8%	1.5%	97.0%					0.7%
Boston: Park Square	142	5.4%		6.3%	84.6%	4.2%	3.8%		1.1%	
Boston: Fenway	121	4.6%	3.5%	17.9%	58.3%	13.3%	2.6%		1.2%	3.3%
Boston: Back Bay	107	4.1%		12.4%	76.0%	4.3%	3.9%	1.1%	1.1%	1.1%
Boston: Prudential	106	4.0%	2.1%	7.0%	83.8%				2.6%	4.4%
Cambridge: Kendall/MIT	97	3.7%		1.6%	92.4%	1.6%	3.2%		1.3%	
Boston: Beacon Hill	70	2.7%		7.9%	78.0%	5.7%	2.2%		1.7%	4.5%
Boston: North End	44	1.7%		3.8%	66.7%	21.0%	3.0%		5.5%	
Cambridge: Harvard Sq.	41	1.5%		6.1%	90.3%				3.7%	
Boston: N. Dorchester	37	1.4%		67.3%	32.7%					
Boston: South End	26	1.0%			86.5%	13.5%				
Cambridge: Central Sq.	23	0.9%	11.0%	7.9%	67.2%		13.9%			
Cambridge: North Cambridge	20	0.8%	18.3%	16.8%	64.9%					
Boston: Charlestown	19	0.7%		15.5%	84.5%					
Boston: Logan Airport	16	0.6%			82.7%					17.3%
Boston: Allston/Brighton	10	0.4%			100.0%					
Boston: Unspecified	9	0.3%	24.6%		45.0%	30.3%				
Boston: Unspecified CBD	9	0.3%			100.0%					
Boston: Roxbury	7	0.2%		30.5%	69.5%					
Boston: East Boston	4	0.1%	37.3%				62.7%			
Boston: W. Roxbury	2	0.1%			100.0%					
Cambridge: Unspecified	2	0.1%			100.0%					
TOTAL	2,632	100.0%	1.1%	4.8%	85.4%	2.1%	2.2%	0.2%	2.0%	2.2%
Unknown	0									

CTPS
1/14/00

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Middleborough/Lakeville** **Multiple Stations**

Expanded Results - Trips to Boston Proper

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Boston: Financial-Retail	904	43.7%		0.8%	95.9%	0.3%	1.4%	0.4%	0.6%	0.6%
Boston: Waterfront	374	18.1%	2.1%	2.7%	75.4%	0.4%	3.7%		6.7%	8.9%
Boston: Govt. Center	287	13.9%	1.4%	3.6%	87.5%	1.3%	2.9%		2.8%	0.5%
Boston: Park Square	142	6.8%		6.3%	84.6%	4.2%	3.8%		1.1%	
Boston: Back Bay	107	5.2%		12.4%	76.0%	4.3%	3.9%	1.1%	1.1%	1.1%
Boston: Prudential	106	5.1%	2.1%	7.0%	83.8%				2.6%	4.4%
Boston: Beacon Hill	70	3.4%		7.9%	78.0%	5.7%	2.2%		1.7%	4.5%
Boston: North End	44	2.1%		3.8%	66.7%	21.0%	3.0%		5.5%	
Boston: South End	26	1.3%			86.5%	13.5%				
Boston: Unspecified CBD	9	0.4%			100.0%					
TOTAL	2,068	100.0%	0.7%	3.1%	87.3%	1.7%	2.3%	0.2%	2.3%	2.4%

Unknown 0

CTPS
1/14/00

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Middleborough/Lakeville** **Multiple Stations**

Expanded Results - Trips to Boston outside Boston Proper

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Boston: South Boston	157	41.2%	0.8%	1.5%	97.0%					0.7%
Boston: Fenway	121	31.8%	3.5%	17.9%	58.3%	13.3%	2.6%		1.2%	3.3%
Boston: N. Dorchester	37	9.7%		67.3%	32.7%					
Boston: Charlestown	19	5.0%		15.5%	84.5%					
Boston: Logan Airport	16	4.1%			82.7%					17.3%
Boston: Allston/Brighton	10	2.6%			100.0%					
Boston: Unspecified	9	2.4%	24.6%		45.0%	30.3%				
Boston: Roxbury	7	1.7%		30.5%	69.5%					
Boston: East Boston	4	1.0%	37.3%				62.7%			
Boston: W. Roxbury	2	0.5%			100.0%					
TOTAL	382	100.0%	2.4%	14.1%	74.7%	4.9%	1.4%		0.4%	2.1%

Unknown 0

CTPS
1/14/00

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Middleborough/Lakeville** **South Station**

Expanded Results - Trips to Cambridge

LOCATIONS			ACTIVITIES						
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Cambridge: Kendall/MIT	97	53.3%		1.6%	92.4%	1.6%	3.2%		1.3%	
Cambridge: Harvard Sq.	41	22.3%		6.1%	90.3%				3.7%	
Cambridge: Central Sq.	23	12.4%	11.0%	7.9%	67.2%		13.9%			
Cambridge: North Cambridge	20	11.0%	18.3%	16.8%	64.9%					
Cambridge: Unspecified	2	1.0%			100.0%					
TOTAL	182	100.0%	3.4%	5.0%	85.8%	0.9%	3.4%		1.5%	

Unknown 0

CTPS
1/14/00

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Middleborough/Lakeville** **Multiple Stations**

Expanded Results - Interzone Trips Except to Boston

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Quincy	138	63.6%	7.8%	1.7%	83.8%		2.1%	1.3%	3.4%	
Brockton	34	15.5%	28.7%	11.9%	45.0%				6.7%	7.8%
Braintree	21	9.7%	10.6%	75.5%		13.8%				
Holbrook	9	4.2%	13.2%		43.4%		43.4%			
Randolph	9	4.1%	54.7%		45.3%					
Bridgewater	4	1.7%		40.5%					59.5%	
Canton	3	1.2%		100.0%						
TOTAL	218	100.0%	13.2%	12.1%	63.9%	1.3%	3.2%	0.8%	4.3%	1.2%

Unknown 0

CTPS
1/14/00

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Middleborough/Lakeville** **South Station**

Expanded Results - Trips beyond Boston or Cambridge

LOCATIONS			ACTIVITIES						
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Medford	13	11.9%			100.0%					
Malden	12	11.4%			100.0%					
Norwood	8	7.7%	41.6%		26.1%	15.7%				16.7%
Somerville: Davis Sq.	7	6.6%	61.8%							38.2%
Newton	6	5.8%	23.6%		44.0%					32.4%
Brookline: Longwood	6	5.9%	31.7%		20.7%	47.6%				
Beverly	5	5.0%			100.0%					
Wakefield	5	4.6%	45.0%						55.0%	
Waltham	5	4.9%		46.3%	53.7%					
Chelsea	5	4.9%			100.0%					
Franklin	4	3.8%	100.0%							
Lynn	4	3.6%			100.0%					
New York	4	4.2%		27.1%			44.8%			28.1%
Acton	3	2.4%			100.0%					
Winthrop	3	2.5%	100.0%							
Somerville: Spring Hill	3	2.5%	100.0%							
Natick	2	2.2%			100.0%					
Stoneham	2	1.7%		100.0%						
Somerville: Winter Hill	2	1.9%	100.0%							
Vermont	2	1.9%					100.0%			
Melrose	1	1.2%			100.0%					
Methuen	1	1.3%			100.0%					
Bedford	1	1.2%					100.0%			
Maine	1	0.9%								100.0%
TOTAL	106	100.0%	23.3%	5.1%	52.1%	4.0%	5.1%		2.6%	7.8%
Unknown	0									

CTPS
1/14/00

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Plymouth/Kingston** **Multiple Stations**

Expanded Results

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Boston: Financial-Retail	1,212	34.0%	0.3%	1.4%	95.2%		1.0%	1.3%	0.7%	
Boston: Waterfront	545	15.3%	0.4%	0.6%	85.9%	0.4%	1.9%	1.1%	5.8%	3.9%
Boston: Govt. Center	359	10.1%		5.6%	89.2%	2.0%	2.0%		1.3%	
Boston: South Boston	209	5.9%	2.5%	1.5%	94.4%		0.9%			0.6%
Boston: Fenway	137	3.8%	6.6%	20.5%	59.0%	5.6%	1.4%		6.8%	
Boston: Park Square	136	3.8%		1.4%	76.5%	6.4%	2.9%		10.9%	1.9%
Boston: Prudential	135	3.8%		4.2%	85.3%	1.5%	6.8%	1.5%	0.7%	
Boston: Back Bay	130	3.6%		6.3%	85.6%	3.7%	3.7%	0.8%		
Quincy	117	3.3%	4.6%	9.2%	83.6%	1.7%			0.9%	
Cambridge: Kendall/MIT	109	3.1%		3.6%	96.4%					
Boston: North End	72	2.0%	1.4%	5.5%	87.4%		4.4%			1.4%
Boston: Beacon Hill	60	1.7%		8.4%	78.0%	10.4%			3.2%	
Braintree	51	1.4%	2.5%	78.9%	13.0%		5.6%			
Cambridge: Harvard Sq.	44	1.2%	6.0%	18.2%	59.7%	5.4%			10.6%	
Boston: N. Dorchester	43	1.2%	10.6%	72.4%	14.6%				2.3%	
Boston: South End	24	0.7%		12.8%	48.4%	27.9%			10.9%	
Boston: Charlestown	21	0.6%		6.2%	93.8%					
Cambridge: North Cambridge	20	0.6%			90.2%		9.8%			
Cambridge: Central Sq.	15	0.4%	18.0%		74.2%		7.8%			
Boston: Jam. Plain	12	0.3%	10.9%		79.6%					9.5%
Boston: Allston/Brighton	11	0.3%	23.4%		76.6%					
Boston: Roxbury	11	0.3%			100.0%					
Boston: Logan Airport	11	0.3%			22.2%		77.8%			
Newton	7	0.2%			100.0%					
Weymouth	6	0.2%	79.4%		20.6%					
Other	70	2.0%	13.0%	5.7%	63.0%	3.2%	1.4%		4.8%	9.0%
TOTAL	3,566	100.0%	1.6%	5.6%	85.4%	1.5%	1.9%	0.7%	2.4%	0.9%
Unknown	13									

CTPS
11/29/99

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Plymouth/Kingston** **Multiple Stations**

Expanded Results - Trips to Boston or Cambridge

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Boston: Financial-Retail	1,210	36.3%	0.3%	1.4%	95.2%		1.0%	1.3%	0.7%	
Boston: Waterfront	545	16.4%	0.4%	0.6%	85.9%	0.4%	1.9%	1.1%	5.8%	3.9%
Boston: Govt. Center	359	10.8%		5.6%	89.2%	2.0%	2.0%		1.3%	
Boston: South Boston	211	6.3%	2.5%	1.5%	94.5%		0.9%			0.6%
Boston: Fenway	137	4.1%	6.6%	20.5%	59.0%	5.6%	1.4%		6.8%	
Boston: Park Square	136	4.1%		1.4%	76.5%	6.4%	2.9%		10.9%	1.9%
Boston: Prudential	135	4.1%		4.2%	85.3%	1.5%	6.8%	1.5%	0.7%	
Boston: Back Bay	130	3.9%		6.3%	85.6%	3.7%	3.7%	0.8%		
Cambridge: Kendall/MIT	109	3.3%		3.6%	96.4%					
Boston: North End	72	2.2%	1.4%	5.5%	87.4%		4.4%			1.4%
Boston: Beacon Hill	60	1.8%		8.4%	78.0%	10.4%			3.2%	
Cambridge: Harvard Sq.	44	1.3%	6.0%	18.2%	59.7%	5.4%			10.6%	
Boston: N. Dorchester	43	1.3%	10.6%	72.4%	14.6%				2.3%	
Boston: South End	24	0.7%		12.8%	48.4%	27.9%			10.9%	
Boston: Charlestown	21	0.6%		6.2%	93.8%					
Cambridge: North Cambridge	20	0.6%			90.2%		9.8%			
Cambridge: Central Sq.	15	0.4%	18.0%		74.2%		7.8%			
Boston: Jam. Plain	12	0.4%	10.9%		79.6%					9.5%
Boston: Allston/Brighton	11	0.3%	23.4%		76.6%					
Boston: Roxbury	11	0.3%			100.0%					
Boston: Logan Airport	11	0.3%			22.2%		77.8%			
Boston: East Boston	5	0.1%			100.0%					
Boston: Unspecified CBD	4	0.1%			100.0%					
Boston: Hyde Park	3	0.1%			100.0%					
Cambridge: Unspecified	2	0.1%							100.0%	
TOTAL	3,329	100.0%	1.1%	4.3%	87.2%	1.4%	2.0%	0.8%	2.5%	0.8%
Unknown	0									

CTPS
1/14/00

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Plymouth/Kingston** **South Station**

Expanded Results - Trips to Boston Proper

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Boston: Financial-Retail	1,210	45.2%	0.3%	1.4%	95.2%		1.0%	1.3%	0.7%	
Boston: Waterfront	545	20.4%	0.4%	0.6%	85.9%	0.4%	1.9%	1.1%	5.8%	3.9%
Boston: Govt. Center	359	13.4%		5.6%	89.2%	2.0%	2.0%		1.3%	
Boston: Park Square	136	5.1%		1.4%	76.5%	6.4%	2.9%		10.9%	1.9%
Boston: Prudential	135	5.1%		4.2%	85.3%	1.5%	6.8%	1.5%	0.7%	
Boston: Back Bay	130	4.8%		6.3%	85.6%	3.7%	3.7%	0.8%		
Boston: North End	72	2.7%	1.4%	5.5%	87.4%		4.4%			1.4%
Boston: Beacon Hill	60	2.2%		8.4%	78.0%	10.4%			3.2%	
Boston: South End	24	0.9%		12.8%	48.4%	27.9%			10.9%	
Boston: Unspecified CBD	4	0.1%			100.0%					
TOTAL	2,675	100.0%	0.3%	2.6%	89.6%	1.4%	1.9%	1.0%	2.4%	0.9%

Unknown 0

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Plymouth/Kingston** **Multiple Stations**

Expanded Results - Trips to Boston outside Boston Proper

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Boston: South Boston	211	45.5%	2.5%	1.5%	94.5%		0.9%			0.6%
Boston: Fenway	137	29.5%	6.6%	20.5%	59.0%	5.6%	1.4%		6.8%	
Boston: N. Dorchester	43	9.2%	10.6%	72.4%	14.6%				2.3%	
Boston: Charlestown	21	4.5%		6.2%	93.8%					
Boston: Jam. Plain	12	2.6%	10.9%		79.6%					9.5%
Boston: Allston/Brighton	11	2.4%	23.4%		76.6%					
Boston: Roxbury	11	2.3%			100.0%					
Boston: Logan Airport	11	2.3%			22.2%		77.8%			
Boston: East Boston	5	1.0%			100.0%					
Boston: Hyde Park	3	0.6%			100.0%					
TOTAL	464	100.0%	4.9%	13.7%	74.4%	1.7%	2.6%		2.2%	0.5%

Unknown 0

CTPS
1/14/00

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Plymouth/Kingston** **South Station**

Expanded Results - Trips to Cambridge

LOCATIONS			ACTIVITIES						
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Cambridge: Kendall/MIT	109	57.4%		3.6%	96.4%					
Cambridge: Harvard Sq.	44	23.0%	6.0%	18.2%	59.7%	5.4%			10.6%	
Cambridge: North Cambridge	20	10.7%			90.2%		9.8%			
Cambridge: Central Sq.	15	7.7%	18.0%		74.2%		7.8%			
Cambridge: Unspecified	2	1.2%							100.0%	
TOTAL	191	100.0%	2.8%	6.3%	84.4%	1.2%	1.7%		3.7%	

Unknown 0

CTPS
1/14/00

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Plymouth/Kingston** **Multiple Stations**

Expanded Results - Interzone Trips Except to Boston

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Quincy	116	65.9%	3.8%	9.3%	84.3%	1.7%			0.9%	
Braintree	51	29.2%	2.5%	78.9%	13.0%		5.6%			
Weymouth	6	3.2%	79.4%		20.6%					
Whitman	2	1.2%	100.0%							
Pembroke	1	0.6%	100.0%							
TOTAL	176	100.0%	7.6%	29.1%	59.9%	1.1%	1.6%		0.6%	
Unknown	0									

CTPS
1/14/00

Old Colony Commuter Rail

1998 Passenger Survey

Destination Locations and Activities

Line: **Plymouth/Kingston** **South Station**

Expanded Results - Trips beyond Boston or Cambridge

LOCATIONS			ACTIVITIES							
City/Town/Neighborhood	Total Riders	Pct. of Riders	Home	School	Work	Pers. Bus.	Work Rel.	Shop-ping	Social/ Rec.	Other/ Unknown
Newton	7	10.9%			100.0%					
Somerville: E Somerville	5	8.3%	53.6%		46.4%					
Malden	4	6.3%			100.0%					
Waltham	4	6.9%			46.8%	53.2%				
Westwood	4	7.3%			100.0%					
Medford	3	4.8%			100.0%					
Revere	3	4.9%			100.0%					
Brookline Village	3	4.4%			100.0%					
Amherst	3	4.6%		100.0%						
Everett	3	4.9%			100.0%					
Natick	2	3.8%			100.0%					
Reading	2	3.2%								100.0%
Watertown	2	3.3%			100.0%					
Winchester	2	3.6%	100.0%							
Worcester	2	3.9%								100.0%
Brookline: Southwest	2	3.2%								100.0%
Lynn	1	1.7%			100.0%					
Milton	1	1.7%			100.0%					
Quincy	1	1.7%	100.0%							
Belmont	1	1.9%			100.0%					
Brookline: Longwood	1	1.9%			100.0%					
Somerville: Spring Hill	1	1.9%		100.0%						
Maine	1	1.7%							100.0%	
New York	1	1.7%					100.0%			
Brockton	1	1.7%	100.0%							
TOTAL	60	100.0%	11.4%	6.5%	64.8%	3.6%	1.7%		1.7%	10.3%
Unknown	0									

CTPS
1/14/00

11. Inner Town/Outer Town Matrix

Information Contained

Each Inner Town/Outer Town Matrix report is a one-page table showing the number of passengers by town of origin at all boarding stations in the selected group, and destination towns of the passengers from each origin town. Each table includes columns for the 10 most common origins and rows for the 16 most common destinations of passengers in the selected group, with both in descending order. (The top 16 destinations from any given origin town are not necessarily the same as those of the report group as a whole, nor are the top 10 origins the same for each destination.) Passengers specifying origins not in the top 10 or destinations not in the top 16 are reported in columns and rows labeled Other.

In addition to the total number of passengers with each origin-destination combination, the tables show the percentages of total riders in the selected group accounted for by passengers from each of the top 10 origins and all other origins combined, and the percentages going to each of the top 16 destinations and to all other destinations combined.

Breakdowns of passenger origins by line and by boarding station are contained in chapter 2 of this report. Breakdowns of passenger destinations by line and by boarding station are contained in chapter 10. The tables in those chapters do not include cross-tabulations of ridership by town of origin to town of destination, however.

Level of Detail Obtained for Origin and Destination

On the survey forms, passengers were asked to identify both their origins and destinations by city, town, or neighborhood and state, and by the nearest street intersection or landmark. Most respondents provided information at least at the city or town level, but not all included an intersection or landmark. Some also omitted the town of origin or destination, but in most cases these could be determined from other information on the forms. For example, the town could be identified if the passenger specified a station and a walking access time that would only be possible from within the town where the station was located.

In the database, all origin and destination towns within Massachusetts reported on surveys were assigned individual numerical codes. The number of riders with origins or destinations outside Massachusetts was very small. A single numerical code was assigned to each other state having any reported origins or destinations. The city of Boston was subdivided into 23 neighborhoods with individual town codes, plus Boston-Unspecified and Boston CBD-Unspecified. Specific origin and destination addresses

shown on the survey forms are retained in the database as part of each record, but are too numerous to include separately in summary tables.

Findings

In the Inner Town/Outer Town Matrix reports the same destinations appear in the top 10 for both Old Colony branches, although there are some differences in order of importance below the top four. Only one destination in the top 16 on each line does not appear in the top 16 on the other line. In the individual branch reports, the relative importance of destination towns also varies among origin towns.

Middleborough/Lakeville Line

On the Middleborough/Lakeville Line, Boston Financial-Retail was by far the most common destination overall. It was also the top destination from nine of the top 10 origins and from 33 of the total 47 origins reported for the branch. There was much less consistency among origins in the rankings of other destinations, but the top 10 overall destinations were at least among the top 16 for most of the top 10 origins. The largest individual inner town-outer town combination was Brockton to Boston Financial-Retail, which accounted for 8.1% of all trips on the branch (239 of 2,957). This was one of only four inner town-outer town pairs with more than 100 riders. The other three were to Boston Financial-Retail from Bridgewater and Randolph and to Boston Waterfront from Brockton. No individual destination town outside the top 16 had more than 25 trip ends from all origins combined, and no individual origin town outside the top 10 started more than 60 trips to all destinations combined.

On the Middleborough/Lakeville Line, the top 16 destinations accounted for 90.8% of all trips, and for at least 88% of the trips from each of the top 10 origins. The top 10 origins accounted for 80.9% of all trips, and for at least 77% of the trips to 13 of the top 16 destinations. The destinations with more dispersed origins were BU-Fenway-Longwood, Back Bay, and the South End. The first two of these had unusually high proportions of riders traveling to colleges or to medical appointments. Most of the college students did not have cars available for their trips. Many probably began their trips from family homes rather than from homes that they had chosen for convenience to public transportation. Passengers going to medical appointments did not repeat their trips frequently enough to influence their choices of residential location. The dispersal of origins of passengers going to the South End was mostly a result of a limited total number of riders with that destination which increased the importance of individual responses.

The top 16 destinations of riders on the Middleborough/Lakeville Line included nine in Boston Proper, three in the rest of Boston, and two in Cambridge. These accounted for, respectively, 69.9%, 10.7%, and 4.7% of all trip destinations. The only two destinations in the top 16 that were not in Boston or Cambridge were Quincy and Brockton, both of which are served directly by stations on the line. Together they accounted for 5.9% of the trip destinations.

Plymouth/Kingston Line

On the Plymouth/Kingston Line, Boston Financial-Retail was also by far the most common destination overall. It was also the top destination from each of the top 10 origins and from 26 of the total 40 origins reported for the branch. There was much less consistency among origins in the rankings of other destinations, but the top 10 overall destinations were at least among the top 16 for most of the top 10 origins. The largest individual inner town-outer town combination was Plymouth to Boston Financial-Retail, which accounted for 4.1% of all trips on the branch (145 of 3,566). This was one of only three inner town-outer town pairs with more than 100 riders. The other two were to Boston Financial-Retail from Weymouth and Abington. No individual destination town outside the top 16 had more than 21 trip ends from all origins combined, and no individual origin town outside the top 12 started more than 71 trips to all destinations combined.

On the Plymouth/Kingston Line, the top 16 destinations accounted for 94.8% of all trips, and for at least 91% of the trips from each of the top 10 origins. The top 10 origins accounted for 78.5% of all trips, and for at least 76% of the trips to 11 of the top 16 destinations. Destinations with under 76% of their trips accounted for by the top 10 origins were Prudential, the North End, Braintree, North Dorchester, and Harvard Square. The greater dispersal of origins of trips going to Prudential resulted mainly from several passengers going from Cape Cod to a meeting at the Hynes Convention Center on the survey day. The dispersal of origins of trips going to the North End was a result of a larger number of origins from Halifax, which was the eleventh largest origin overall, than from all but three of the top 10 overall origins, but the absolute numbers involved were small.

Trips to Braintree from origins outside of the overall top 10 were all to a private high school, and trips to North Dorchester were mostly to a private high school or to UMass-Boston. Reasons for dispersal of origins of such trips are similar to those discussed above for trips to BU-Fenway-Longwood on the Middleborough/Lakeville Line. The dispersal of origins of Harvard Square trips resulted from student trips and non-repetitive social/recreational trips.

The top 16 destinations of riders on the Plymouth/Kingston Line included nine in Boston Proper, three in the rest of Boston, and two in Cambridge. These accounted for, respectively, 75.2%, 11.0%, and 4.3% of all trip destinations. The only two destinations in the top 16 that were not in Boston or Cambridge were Quincy and Braintree, both of which are served directly by stations on the line. Together they accounted for 4.7% of the trip destinations.

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Middleborough/Lakeville** **All Stations**

Expanded Results

Inner Town \ Outer Town	Brockton	Bridgewater	Randolph	Middleborough	Holbrook	Lakeville	East Bridgewater	New Bedford	Quincy	Wareham	Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	239	148	108	52	49	29	36	24	17	19	183 20.2%	904 30.7%	0
Boston: Waterfront	115	47	24	18	26	22	8	7	22	8	72 19.4%	374 12.7%	4
Boston: Govt. Ctr.	85	43	32	20	11	9	2	4	7	7	61 21.5%	287 9.7%	5
Boston: S. Boston	37	15	34	5	9	6	1	3	8	3	36 22.9%	157 5.3%	0
Boston: Park Sq.	42	19	17	13	5	4	2	3	0	5	32 22.5%	142 4.8%	0
Quincy	48	36	5	10	0	1	5	3	0	0	30 21.7%	138 4.7%	0
Boston: Fenway	32	19	8	1	7	3	9	2	0	7	33 27.3%	121 4.1%	0
Boston: Back Bay	34	22	2	7	4	3	2	3	0	1	29 27.1%	107 3.6%	0
Boston: Prudential	30	18	10	12	7	4	5	3	6	4	7 6.6%	106 3.6%	0
Camb: Kendall/MIT	25	32	0	10	2	5	2	6	0	0	15 15.5%	97 3.3%	0
Boston: Beacon Hill	28	12	8	6	0	5	0	4	0	0	7 10.0%	70 2.4%	0
Boston: North End	20	5	0	5	0	2	4	0	0	0	8 18.2%	44 1.5%	0
Camb: Harvard Sq.	6	9	6	2	8	6	0	0	0	2	2 4.9%	41 1.4%	0
Boston: No. Dorch.	19	10	3	2	0	0	0	0	0	0	3 8.1%	37 1.3%	0
Brockton	0	15	0	15	0	4	0	0	0	0	0 0.0%	34 1.2%	0
Boston: South End	7	4	2	1	0	0	0	1	0	2	9 34.6%	26 0.9%	0
Other No. of Riders % of Column	94 10.9%	58 11.3%	14 5.1%	20 10.1%	14 9.9%	13 11.2%	6 7.3%	7 10.0%	4 6.3%	6 9.4%	34 12.5%	272 9.2%	2
TOTAL No. of Riders % of Total	861 29.2%	512 17.4%	273 9.3%	199 6.8%	142 4.8%	116 3.9%	82 2.8%	70 2.4%	64 2.2%	64 2.2%	563 19.1%	2,957 100.0%	11
Unknown	3	2	0	0	4	0	0	0	0	0	0	9	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Middleborough/Lakeville** **Middleborough/Lakeville Station**

Expanded Results

Inner Town \ Outer Town	Middleborough	Lakeville	New Bedford	Wareham	Taunton	Marion	Carver	Rochester	Freetown	Bourne	Other & % of row	Total & % of tot.	Unknown
Boston: Fin.-Ret.	47	29	21	19	6	11	8	6	1	3	32 17.5%	183 26.5%	0
Boston: Waterfront	17	22	7	8	8	0	2	0	1	4	6 8.1%	80 11.6%	4
Boston: Govt. Ctr.	20	9	4	7	1	3	2	3	4	3	21 27.3%	77 11.2%	0
Boston: S. Boston	5	6	3	3	2	1	1	1	2	0	11 31.4%	35 5.1%	0
Quincy	10	1	3	0	3	0	6	0	3	0	7 21.2%	33 4.8%	0
Boston: Park Sq.	11	4	3	5	0	3	1	3	0	0	3 9.1%	33 4.8%	0
Boston: Fenway	1	3	2	7	0	4	1	3	3	0	7 22.6%	31 4.5%	0
Boston: Prudential	12	4	3	4	0	2	0	0	3	1	2 6.5%	31 4.5%	0
Boston: Back Bay	5	3	3	1	1	2	1	2	3	0	8 27.6%	29 4.2%	0
Camb: Kendall/MIT	7	5	6	0	2	0	0	3	0	3	1 3.7%	27 3.9%	0
Brockton	15	4	0	0	0	0	0	0	0	0	0 0.0%	19 2.8%	0
Boston: Beacon Hill	6	5	3	0	0	0	0	1	0	0	1 6.3%	16 2.3%	0
Boston: North End	5	2	0	0	2	0	0	0	1	1	2 15.4%	13 1.9%	0
Camb: Harvard Sq.	2	6	0	2	0	1	0	0	0	0	0 0.0%	11 1.6%	0
Boston: South End	1	0	1	2	1	0	0	0	0	0	5 50.0%	10 1.5%	0
Holbrook	4	0	0	0	4	0	0	0	0	0	0 0.0%	8 1.2%	0
Other No. of Riders % of Column	12 6.7%	13 11.2%	7 10.6%	6 9.4%	2 6.3%	1 3.6%	3 12.0%	1 4.3%	1 4.5%	4 21.1%	7 11.9%	59 8.6%	2
TOTAL No. of Riders % of Total	180 26.1%	116 16.8%	66 9.6%	64 9.3%	32 4.6%	28 4.1%	25 3.6%	23 3.3%	22 3.2%	19 2.8%	114 16.5%	695 100.0%	6
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Middleborough/Lakeville** **Bridgewater Station**

Expanded Results

Inner Town \ Outer Town	Bridgewater	East Bridgewater	Raynham	Taunton	Middleborough	Halifax	Berkley	Westport	Somerset	New Bedford	Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	133	9	16	3	6	5	4	4	2	0	1 0.5%	183 29.4%	0
Boston: Waterfront	46	5	7	0	2	0	0	0	2	0	1 1.6%	63 10.1%	0
Boston: Govt. Ctr.	40	2	5	6	0	2	0	0	0	0	0 0.0%	54 8.7%	0
Quincy	33	5	0	2	0	0	0	0	0	0	1 2.4%	41 6.6%	0
Camb: Kendall/MIT	32	2	2	0	3	0	0	0	0	0	0 0.0%	39 6.3%	0
Boston: Park Sq.	19	0	0	5	2	0	0	0	0	0	2 7.1%	28 4.5%	0
Boston: Fenway	17	5	2	0	0	0	0	0	0	0	1 4.0%	25 4.0%	0
Boston: Back Bay	21	2	0	0	1	0	0	0	0	0	0 0.0%	24 3.9%	0
Boston: Prudential	18	2	0	0	0	0	0	0	0	0	0 0.0%	20 3.2%	0
Boston: S. Boston	15	1	0	2	0	0	0	0	0	0	1 5.3%	19 3.1%	0
Brockton	15	0	0	0	0	0	0	0	0	0	0 0.0%	15 2.4%	0
Boston: Beacon Hill	12	0	0	0	0	0	0	0	0	2	0 0.0%	14 2.2%	0
Boston: No. Dorch.	10	0	0	0	2	0	0	0	0	0	0 0.0%	12 1.9%	0
Braintree	11	0	0	0	0	0	0	0	0	0	0 0.0%	11 1.8%	0
Camb: Harvard Sq.	9	0	0	0	0	0	0	0	0	0	0 0.0%	9 1.4%	0
Camb: No. Camb.	8	0	0	0	0	0	0	0	0	0	0 0.0%	8 1.3%	0
Other No. of Riders % of Column	46 9.5%	2 5.7%	2 5.9%	4 18.2%	4 20.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	1 1.7%	59 9.5%	0
TOTAL No. of Riders % of Total	485 77.9%	35 5.6%	34 5.5%	22 3.5%	20 3.2%	7 1.1%	4 0.6%	4 0.6%	4 0.6%	2 0.3%	8 1.3%	624 100.0%	0
Unknown	2	0	0	0	0	0	0	0	0	0	0	2	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Middleborough/Lakeville** **Campello Station**

Expanded Results

Inner Town \ Outer Town	Brockton	West Bridgewater	East Bridgewater	Bridgewater	Easton	Taunton	Dighton	Raynham			Other & % of row	Total & % of tot.	Unknown
Boston: Fin.-Ret.	86	12	25	13	8	2	0	0	0	0	0 0.0%	146 34.9%	0
Boston: Waterfront	55	5	3	2	3	0	3	0	0	0	0 0.0%	69 16.5%	0
Boston: Govt. Ctr.	26	3	0	3	0	0	0	2	0	0	0 0.0%	33 7.9%	0
Quincy	15	3	0	3	0	0	0	0	0	0	0 0.0%	21 5.0%	0
Boston: Park Sq.	10	0	2	0	3	2	0	0	0	0	0 0.0%	16 3.8%	0
Boston: No. Dorch.	15	0	0	0	0	0	0	0	0	0	0 0.0%	15 3.6%	0
Boston: Back Bay	5	7	0	2	0	0	0	0	0	0	0 0.0%	14 3.3%	0
Boston: Fenway	4	0	4	3	3	0	0	0	0	0	0 0.0%	14 3.3%	0
Boston: Beacon Hill	9	4	0	0	0	0	0	0	0	0	0 0.0%	13 3.1%	0
Boston: Prudential	10	0	3	0	0	0	0	0	0	0	0 0.0%	12 2.9%	0
Boston: S. Boston	5	0	0	0	5	0	0	0	0	0	1 9.1%	11 2.6%	0
Camb: Kendall/MIT	9	2	0	0	0	0	0	0	0	0	0 0.0%	11 2.6%	0
Boston: North End	4	2	3	0	0	0	0	0	0	0	0 0.0%	9 2.2%	0
Boston: South End	3	3	0	0	0	0	0	0	0	0	0 0.0%	5 1.2%	0
Camb: Central Sq.	3	0	3	0	0	0	0	0	0	0	0 0.0%	5 1.2%	0
Medford	0	3	0	0	0	0	0	0	0	0	0 0.0%	3 0.7%	0
Other No. of Riders % of Column	13 4.8%	3 6.4%	3 6.5%	2 7.1%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0	0	0 0.0%	21 5.0%	0
TOTAL No. of Riders % of Total	272 65.1%	47 11.2%	46 11.0%	28 6.7%	22 5.3%	4 1.0%	3 0.7%	2 0.5%	0 0.0%	0 0.0%	1 0.2%	418 100.0%	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Middleborough/Lakeville** **Brockton Station**

Expanded Results

Inner Town \ Outer Town	Brockton										Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	67	0	0	0	0	0	0	0	0	0	0 0.0%	67 27.3%	0
Boston: Govt. Ctr.	23	0	0	0	0	0	0	0	0	0	0 0.0%	23 9.4%	0
Boston: Waterfront	23	0	0	0	0	0	0	0	0	0	0 0.0%	23 9.4%	0
Boston: Back Bay	19	0	0	0	0	0	0	0	0	0	0 0.0%	19 7.7%	0
Quincy	15	0	0	0	0	0	0	0	0	0	0 0.0%	15 6.1%	0
Boston: S. Boston	11	0	0	0	0	0	0	0	0	0	0 0.0%	11 4.5%	0
Boston: Fenway	11	0	0	0	0	0	0	0	0	0	0 0.0%	11 4.5%	0
Boston: Prudential	10	0	0	0	0	0	0	0	0	0	0 0.0%	10 4.1%	0
Boston: North End	7	0	0	0	0	0	0	0	0	0	0 0.0%	7 2.8%	0
Camb: Central Sq.	7	0	0	0	0	0	0	0	0	0	0 0.0%	7 2.8%	0
Somvlle: Davis Sq.	7	0	0	0	0	0	0	0	0	0	0 0.0%	7 2.8%	0
Camb: Kendall/MIT	6	0	0	0	0	0	0	0	0	0	0 0.0%	6 2.4%	0
Boston: Beacon Hill	5	0	0	0	0	0	0	0	0	0	0 0.0%	5 2.0%	0
Boston: Park Sq.	4	0	0	0	0	0	0	0	0	0	0 0.0%	4 1.6%	0
Waltham	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 1.2%	0
Winthrop	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 1.2%	0
Other No. of Riders % of Column	28 11.2%	0	0	0	0	0	0	0	0	0	0 0.0%	28 11.4%	0
TOTAL No. of Riders % of Total	249 101.3%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	249 100.0%	0
Unknown	3	0	0	0	0	0	0	0	0	0	0	3	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Middleborough/Lakeville** **Montello Station**

Expanded Results

Inner Town \ Outer Town	Brockton	Easton	Abington	Avon	Whitman	New Bedford	Bridgewater	East Bridgewater	Taunton		Other & % of row	Total & % of tot.	Unknown
Boston: Fin.-Ret.	86	2	5	3	3	3	2	2	1	0	0 0.0%	106 30.0%	0
Boston: Govt. Ctr.	33	2	0	0	0	0	0	0	0	0	0 1.0%	38 10.8%	2
Boston: Waterfront	36	0	0	0	0	0	0	0	0	0	0 0.0%	36 10.2%	0
Boston: Park Sq.	26	4	0	0	0	0	0	0	0	0	1 3.2%	31 8.8%	0
Boston: S. Boston	17	2	0	2	0	0	0	0	0	0	0 0.0%	20 5.7%	0
Quincy	18	0	0	0	0	0	0	0	0	0	0 0.0%	18 5.1%	0
Boston: Fenway	16	0	2	0	0	0	0	0	0	0	0 0.0%	18 5.1%	0
Boston: Prudential	11	0	0	0	0	0	0	0	0	0	0 0.0%	11 3.1%	0
Boston: Back Bay	10	0	0	0	0	0	0	0	0	0	0 0.0%	10 2.8%	0
Boston: Beacon Hill	9	0	0	0	0	0	0	0	0	0	0 0.0%	9 2.5%	0
Boston: North End	9	0	0	0	0	0	0	0	0	0	0 0.0%	9 2.5%	0
Camb: Kendall/MIT	7	0	0	0	2	0	0	0	0	0	0 0.0%	9 2.5%	0
Camb: No. Camb.	6	0	0	0	0	0	0	0	0	0	0 0.0%	6 1.7%	0
Boston: Charlestown	5	0	0	0	0	0	0	0	0	0	0 0.0%	5 1.4%	0
Braintree	5	0	0	0	0	0	0	0	0	0	0 0.0%	5 1.4%	0
Malden	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 0.8%	0
Other No. of Riders % of Column	23 7.2%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0	0 0.0%	23 6.5%	0
TOTAL No. of Riders % of Total	320 90.6%	10 2.8%	7 2.0%	5 1.4%	5 1.4%	3 0.8%	2 0.6%	2 0.6%	1 0.3%	0 0.0%	1 0.3%	357 100.0%	3
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Middleborough/Lakeville** **Holbrook/Randolph Station**

Expanded Results

Inner Town \ Outer Town	Randolph	Holbrook	Avon	Brockton	Braintree	Stoughton	Abington	Canton	Easton	Fairhaven	Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	108	49	14	0	2	5	2	0	0	0	0 0.0%	180 36.2%	0
Boston: Waterfront	24	26	5	2	9	0	0	0	0	0	0 0.0%	66 13.3%	0
Boston: Govt. Ctr.	32	11	2	4	0	0	0	0	0	0	0 0.0%	51 10.3%	2
Boston: S. Boston	34	9	0	4	2	0	0	0	0	0	1 2.0%	50 10.1%	0
Boston: Park Sq.	17	5	0	0	0	4	0	0	0	0	0 0.0%	26 5.2%	0
Boston: Fenway	8	7	0	0	0	0	0	4	4	0	0 0.0%	23 4.6%	0
Boston: Prudential	10	7	0	0	0	0	0	0	0	0	0 0.0%	16 3.2%	0
Camb: Harvard Sq.	6	8	0	0	0	0	0	0	0	0	1 6.7%	15 3.0%	0
Boston: Beacon Hill	8	0	0	5	0	0	0	0	0	0	0 0.0%	13 2.6%	0
Quincy	5	0	0	0	0	0	4	0	0	3	0 0.0%	12 2.4%	0
Boston: Back Bay	2	4	0	0	0	0	0	0	0	0	0 0.0%	6 1.2%	0
Malden	2	0	2	0	0	0	0	0	0	0	1 20.0%	5 1.0%	0
Beverly	3	3	0	0	0	0	0	0	0	0	0 0.0%	5 1.0%	0
Boston: Charlestown	5	0	0	0	0	0	0	0	0	0	0 0.0%	5 1.0%	0
Camb: Kendall/MIT	0	2	0	3	0	0	0	0	0	0	0 0.0%	5 1.0%	0
Medford	0	4	0	0	0	0	0	0	0	0	0 0.0%	4 0.8%	0
Other No. of Riders % of Column	9 3.3%	7 4.9%	0 0.0%	3 14.3%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	19 3.8%	0
TOTAL No. of Riders % of Total	273 54.9%	142 28.6%	23 4.6%	21 4.2%	13 2.6%	9 1.8%	6 1.2%	4 0.8%	4 0.8%	3 0.6%	3 0.6%	501 100.0%	3
Unknown	0	4	0	0	0	0	0	0	0	0	0	4	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Middleborough/Lakeville** **Braintree Station**

Expanded Results

Inner Town \ Outer Town	Braintree	Hanover	Weymouth								Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	0	4	4	0	0	0	0	0	0	0	0 0.0%	8 33.3%	0
Boston: Waterfront	8	0	0	0	0	0	0	0	0	0	0 0.0%	8 33.3%	0
Boston: S. Boston	4	0	0	0	0	0	0	0	0	0	0 0.0%	4 16.7%	0
Boston: Govt. Ctr.	4	0	0	0	0	0	0	0	0	0	0 0.0%	4 16.7%	0
TOTAL													
No. of Riders	16	4	4	0	0	0	0	0	0	0	0	24	0
% of Total	66.7%	16.7%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Middleborough/Lakeville** **Quincy Center Station**

Expanded Results

Inner Town \ Outer Town	Quincy	Weymouth	Braintree	Marshfield							Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	17	4	7	4	0	0	0	0	0	0	0 0.0%	32 34.0%	0
Boston: Waterfront	22	8	0	0	0	0	0	0	0	0	0 0.0%	30 31.9%	0
Boston: S. Boston	8	0	0	0	0	0	0	0	0	0	0 0.0%	8 8.5%	0
Boston: Govt. Ctr.	7	0	0	0	0	0	0	0	0	0	0 0.0%	7 7.4%	0
Boston: Prudential	6	0	0	0	0	0	0	0	0	0	0 0.0%	6 6.4%	0
Franklin	4	0	0	0	0	0	0	0	0	0	0 0.0%	4 4.3%	0
Boston: Back Bay	0	4	0	0	0	0	0	0	0	0	0 0.0%	4 4.3%	0
Boston: Park Sq.	0	4	0	0	0	0	0	0	0	0	0 0.0%	4 4.3%	0
TOTAL													
No. of Riders	64	20	7	4	0	0	0	0	0	0	0	95	0
% of Total	68.1%	21.3%	7.4%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Plymouth/Kingston** **All Stations**

Expanded Results

Inner Town \ Outer Town	Plymouth	Weymouth	Abington	Whitman	Pembroke	Rockland	Hanson	Kingston	Duxbury	Hanover	Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	145	128	134	93	92	98	71	60	84	57	247 20.4%	1,212 34.1%	2
Boston: Waterfront	76	61	61	22	46	33	34	22	38	17	124 22.9%	545 15.3%	10
Boston: Govt. Ctr.	39	53	31	41	25	20	20	19	12	17	82 22.8%	359 10.1%	0
Boston: S. Boston	23	16	26	19	25	9	13	13	13	19	30 14.5%	209 5.9%	2
Boston: Fenway	23	6	8	23	3	22	8	8	7	3	26 19.0%	137 3.9%	0
Boston: Park Sq.	37	20	11	8	7	7	11	11	4	3	17 12.5%	136 3.8%	0
Boston: Prudential	21	16	10	11	7	5	1	9	4	8	43 31.9%	135 3.8%	0
Boston: Back Bay	16	22	8	3	11	15	15	8	5	5	22 16.9%	130 3.7%	0
Quincy	38	6	7	10	0	5	10	11	4	3	23 19.7%	117 3.3%	0
Camb: Kendall/MIT	19	3	12	17	12	10	10	5	2	0	19 17.4%	109 3.1%	0
Boston: North End	9	11	3	4	1	9	3	3	4	2	23 31.9%	72 2.0%	0
Boston: Beacon Hill	14	6	0	8	3	2	9	1	2	1	14 23.3%	60 1.7%	0
Braintree	15	1	0	0	0	0	6	4	9	0	16 31.4%	51 1.4%	0
Camb: Harvard Sq.	4	0	0	6	2	0	1	7	3	7	14 31.8%	44 1.2%	0
Boston: No. Dorch.	14	0	2	0	0	5	3	6	0	0	13 30.2%	43 1.2%	0
Boston: South End	4	3	3	3	0	3	0	5	0	0	3 12.5%	24 0.7%	0
Other No. of Riders % of Column	49 9.0%	6 1.7%	4 1.3%	22 7.6%	17 6.8%	4 1.6%	13 5.7%	15 7.2%	7 3.5%	2 1.4%	44 24.0%	183 5.2%	0
TOTAL No. of Riders % of Total	546 15.4%	358 10.1%	320 9.0%	290 8.2%	251 7.1%	247 7.0%	228 6.4%	207 5.8%	198 5.6%	144 4.1%	762 21.5%	3,566 100.0%	15
Unknown	6	0	0	0	0	0	2	0	0	0	2	10	2

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Plymouth/Kingston** **Plymouth Station**

Expanded Results

Inner Town \ Outer Town	Plymouth	Kingston	Marshfield	Yarmouth							Other & % of row	Total & % of tot.	Un-known
Boston: Waterfront	8	0	0	0	0	0	0	0	0	0	0 0.0%	10 16.8%	2
Quincy	7	0	0	0	0	0	0	0	0	0	0 0.0%	7 11.8%	0
Boston: Park Sq.	5	0	0	0	0	0	0	0	0	0	0 0.0%	5 8.4%	0
Boston: Prudential	2	0	3	0	0	0	0	0	0	0	0 0.0%	5 8.4%	0
Weymouth	4	0	0	0	0	0	0	0	0	0	0 0.0%	4 6.7%	0
Boston: Fin.-Ret.	1	0	0	3	0	0	0	0	0	0	0 0.0%	4 6.7%	0
Boston: No. Dorch.	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 5.0%	0
Boston: Fenway	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 5.0%	0
Camb: Harvard Sq.	0	3	0	0	0	0	0	0	0	0	0 0.0%	3 5.0%	0
Waltham	2	0	0	0	0	0	0	0	0	0	0 0.0%	2 3.4%	0
Whitman	2	0	0	0	0	0	0	0	0	0	0 0.0%	2 3.4%	0
Winchester	2	0	0	0	0	0	0	0	0	0	0 0.0%	2 3.4%	0
Worcester	0	2	0	0	0	0	0	0	0	0	0 0.0%	2 3.4%	0
Boston: Logan	0	2	0	0	0	0	0	0	0	0	0 0.0%	2 3.4%	0
Lynn Unspec.	1	0	0	0	0	0	0	0	0	0	0 0.0%	1 1.7%	0
Boston: Govt. Ctr.	1	0	0	0	0	0	0	0	0	0	0 0.0%	1 1.7%	0
Other No. of Riders % of Column	2 4.7%	1 12.5%	0 0.0%	0 0.0%	0	0	0	0	0	0	0 0.0%	3 5.0%	0
TOTAL No. of Riders % of Total	43 72.3%	8 13.5%	3 5.0%	3 5.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	59 100.0%	2
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	2

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Plymouth/Kingston** **Kingston/Route 3 Station**

Expanded Results

Inner Town \ Outer Town	Plymouth	Duxbury	Kingston	Sandwich	Carver	Barnstable	Bourne	Yarmouth	Marshfield	Dennis	Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	144	43	33	7	8	9	4	4	5	7	4 1.5%	268 29.9%	0
Boston: Waterfront	69	17	11	4	2	2	2	4	1	0	4 4.1%	118 13.2%	1
Boston: Govt. Ctr.	38	10	11	7	2	3	3	2	3	2	3 3.6%	84 9.4%	0
Quincy	31	2	5	0	4	0	2	0	0	0	4 8.3%	48 5.4%	0
Boston: Park Sq.	32	3	4	2	0	0	6	0	0	0	0 0.0%	47 5.3%	0
Boston: S. Boston	21	7	7	0	0	0	0	0	0	0	1 3.5%	39 4.4%	2
Boston: Prudential	19	3	3	1	2	5	0	4	1	0	1 2.6%	39 4.4%	0
Boston: Fenway	19	7	2	2	3	0	0	0	0	0	3 8.3%	36 4.0%	0
Camb: Kendall/MIT	19	0	2	2	1	1	0	1	0	0	3 10.3%	29 3.2%	0
Braintree	13	6	0	2	0	0	2	0	0	0	1 4.2%	24 2.7%	0
Boston: Back Bay	14	3	4	0	0	0	0	0	1	0	1 4.3%	23 2.6%	0
Boston: No. Dorch.	11	0	6	2	0	0	0	0	0	0	2 9.5%	21 2.3%	0
Boston: Beacon Hill	14	0	1	0	2	0	0	0	1	0	0 0.0%	18 2.0%	0
Boston: North End	9	4	2	0	1	0	0	2	0	0	0 0.0%	18 2.0%	0
Boston: South End	4	0	5	0	0	0	0	0	2	0	0 0.0%	11 1.2%	0
Camb: Harvard Sq.	4	1	4	1	0	0	0	0	0	0	0 0.0%	10 1.1%	0
Other No. of Riders % of Column	36 7.2%	5 4.5%	6 5.7%	3 9.1%	2 7.4%	3 13.0%	3 13.6%	2 10.5%	0 0.0%	0 0.0%	3 4.8%	63 7.0%	0
TOTAL No. of Riders % of Total	497 55.5%	111 12.4%	106 11.8%	33 3.7%	27 3.0%	23 2.6%	22 2.5%	19 2.1%	14 1.6%	9 1.0%	31 3.5%	896 100.0%	4
Unknown	6	0	0	0	0	0	0	0	0	2	0	8	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Plymouth/Kingston** **Halifax Station**

Expanded Results

Inner Town \ Outer Town	Halifax	Pembroke	Kingston	Duxbury	Carver	Plympton	Hanson	Marshfield	Middleborough		Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	22	29	23	22	10	6	0	0	0	0	0 0.6%	115 28.7%	2
Boston: Waterfront	11	18	10	11	6	2	0	0	1	0	0 0.0%	60 15.0%	1
Boston: S. Boston	9	14	5	4	0	2	2	0	0	0	1 2.7%	37 9.2%	0
Boston: Govt. Ctr.	12	8	8	2	2	4	0	0	0	0	0 0.0%	35 8.7%	0
Boston: Back Bay	7	9	3	2	2	0	0	0	0	0	0 0.0%	23 5.7%	0
Boston: Prudential	0	2	6	1	5	5	0	2	0	0	0 0.0%	20 5.0%	0
Boston: Park Sq.	4	3	7	1	0	2	0	0	0	0	1 5.6%	18 4.5%	0
Quincy	8	0	6	0	0	3	0	0	0	0	0 0.0%	17 4.2%	0
Boston: Fenway	3	3	6	0	0	2	0	0	0	0	0 0.0%	14 3.5%	0
Boston: North End	9	1	1	0	0	0	0	0	0	0	0 0.0%	11 2.7%	0
Camb: Kendall/MIT	2	3	2	2	0	2	0	0	0	0	0 0.0%	11 2.7%	0
Boston: Beacon Hill	1	2	0	0	7	0	0	0	0	0	0 0.0%	9 2.2%	0
Boston: Charlestown	2	0	2	1	0	0	0	0	0	0	0 0.0%	5 1.2%	0
Boston: Roxbury	2	0	2	0	0	0	0	0	0	0	0 0.0%	4 1.0%	0
Boston: No. Dorch.	4	0	0	0	0	0	0	0	0	0	0 0.0%	4 1.0%	0
Camb: Central Sq.	2	2	0	0	0	0	0	0	0	0	0 0.0%	4 1.0%	0
Other No. of Riders % of Column	2 2.0%	6 6.0%	4 4.7%	1 2.1%	4 11.1%	2 6.7%	0 0.0%	0 0.0%	0 0.0%	0	0 0.0%	19 4.7%	0
TOTAL No. of Riders % of Total	100 24.9%	100 24.9%	85 21.2%	47 11.7%	36 9.0%	30 7.5%	2 0.5%	2 0.5%	1 0.2%	0 0.0%	3 0.7%	406 100.0%	4
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Plymouth/Kingston** **Hanson Station**

Expanded Results

Inner Town \ Outer Town	Hanson	Pembroke	East Bridgewater	Duxbury	Halifax	Hanover	Carver	Kingston	Marshfield	Plymouth	Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	40	54	16	19	8	4	2	4	0	0	1 0.7%	148 35.4%	0
Boston: Waterfront	28	23	2	0	2	0	0	0	2	0	2 3.4%	59 14.1%	0
Boston: Govt. Ctr.	17	13	2	0	2	0	0	0	0	0	0 0.0%	34 8.1%	0
Boston: S. Boston	6	8	0	2	0	0	2	0	0	2	1 4.8%	21 5.0%	0
Boston: Back Bay	15	2	0	0	0	0	0	0	2	2	0 0.0%	21 5.0%	0
Camb: Kendall/MIT	4	9	2	0	0	0	2	0	0	0	0 0.0%	17 4.1%	0
Braintree	6	0	0	4	7	0	0	0	0	0	0 0.0%	17 4.1%	0
Boston: Fenway	8	0	2	0	6	0	0	0	0	0	0 0.0%	16 3.8%	0
Quincy	10	0	0	2	2	0	0	0	0	0	0 0.0%	13 3.1%	0
Boston: Beacon Hill	6	2	0	2	0	1	0	0	0	0	0 0.0%	11 2.6%	0
Boston: Park Sq.	7	4	0	0	0	0	0	0	0	0	0 0.0%	11 2.6%	0
Boston: Prudential	1	5	0	0	0	1	0	0	0	0	1 12.5%	8 1.9%	0
Boston: North End	3	0	4	0	0	0	0	0	0	0	0 0.0%	7 1.7%	0
Camb: Harvard Sq.	1	2	0	2	0	2	0	0	0	0	0 0.0%	7 1.7%	0
Camb: No. Camb.	0	4	2	0	0	0	0	0	0	0	0 0.0%	6 1.4%	0
Boston: No. Dorch.	3	0	2	0	0	0	0	0	0	0	0 0.0%	5 1.2%	0
Other No. of Riders % of Column	13 7.7%	5 3.8%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	18 4.3%	0
TOTAL No. of Riders % of Total	168 40.2%	131 31.3%	32 7.6%	31 7.4%	27 6.5%	8 1.9%	6 1.4%	4 1.0%	4 1.0%	4 1.0%	5 1.2%	419 100.0%	0
Unknown	2	0	0	0	0	0	0	0	0	0	0	2	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Plymouth/Kingston** **Whitman Station**

Expanded Results

Inner Town \ Outer Town	Whitman	East Bridgewater	Hanson	Hanover	Pembroke	Norwell	Marshfield	Brockton	Bridgewater	Rockland	Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	80	28	23	3	8	2	0	0	0	0	1 0.7%	145 34.1%	0
Boston: Govt. Ctr.	32	11	3	2	0	4	0	0	0	0	0 0.0%	52 12.2%	0
Boston: Waterfront	20	2	3	5	2	0	5	5	0	0	0 1.5%	45 10.6%	2
Boston: Fenway	23	3	0	3	0	0	0	0	3	0	0 0.0%	32 7.5%	0
Camb: Kendall/MIT	17	3	6	0	0	2	0	0	0	0	1 3.4%	29 6.8%	0
Boston: S. Boston	19	0	5	0	0	0	0	0	0	0	0 0.0%	24 5.6%	0
Boston: Park Sq.	8	3	4	0	0	0	0	0	0	0	0 0.0%	15 3.5%	0
Boston: Prudential	11	3	0	0	0	0	0	0	0	0	0 0.0%	14 3.3%	0
Quincy	10	0	0	0	0	0	0	0	0	0	0 0.0%	10 2.4%	0
Boston: Beacon Hill	4	0	3	0	0	0	0	0	0	2	1 10.0%	10 2.4%	0
Camb: Harvard Sq.	6	5	0	0	0	0	0	0	0	0	0 0.0%	10 2.4%	0
Camb: No. Camb.	4	0	0	0	0	0	0	0	0	0	0 0.0%	4 0.9%	0
Braintree	0	4	0	0	0	0	0	0	0	0	0 0.0%	4 0.9%	0
Revere	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 0.7%	0
Westwood	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 0.7%	0
Boston: Charlestown	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 0.7%	0
Other No. of Riders % of Column	17 6.5%	5 7.5%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	22 5.2%	0
TOTAL No. of Riders % of Total	260 61.1%	67 15.8%	47 11.1%	13 3.1%	10 2.4%	8 1.9%	5 1.2%	5 1.2%	3 0.7%	2 0.5%	4 0.9%	425 100.0%	2
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Plymouth/Kingston** **Abington Station**

Expanded Results

Inner Town \ Outer Town	Abington	Rockland	Hanover	Whitman	Brockton	Marshfield	Norwell	Hanson	Scituate	Bridgewater	Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	80	67	36	12	5	5	7	7	2	3	3 1.3%	227 41.8%	0
Boston: Waterfront	30	24	9	2	7	5	2	0	0	0	1 1.3%	80 14.7%	0
Boston: Govt. Ctr.	15	17	7	5	0	0	0	0	0	0	0 0.0%	44 8.1%	0
Boston: S. Boston	19	7	8	0	0	2	2	0	0	0	2 5.0%	40 7.4%	0
Boston: Back Bay	5	13	5	0	2	0	0	0	0	0	0 0.0%	25 4.6%	0
Boston: Prudential	10	5	7	0	0	0	0	0	0	0	0 0.0%	22 4.1%	0
Boston: Fenway	4	14	0	0	0	0	0	0	0	0	1 5.3%	19 3.5%	0
Quincy	7	5	3	0	0	0	0	0	0	0	0 0.0%	15 2.8%	0
Camb: Kendall/MIT	9	7	0	0	0	0	0	0	0	0	0 0.0%	15 2.8%	0
Boston: North End	0	9	2	2	0	0	0	0	0	0	0 0.0%	13 2.4%	0
Boston: Park Sq.	3	7	3	0	0	0	0	0	0	0	0 0.0%	12 2.2%	0
Boston: No. Dorch.	2	5	0	0	0	0	0	0	0	0	0 0.0%	7 1.3%	0
Camb: Harvard Sq.	0	0	5	0	2	0	0	0	0	0	0 0.0%	7 1.3%	0
Boston: South End	0	3	0	0	0	0	0	0	0	0	0 0.0%	3 0.6%	0
Amherst	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 0.6%	0
Newton	0	2	0	0	0	0	0	0	0	0	0 0.0%	2 0.4%	0
Other No. of Riders % of Column	1 0.5%	2 1.1%	2 2.3%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	2 50.0%	0 0.0%	0 0.0%	7 1.3%	0
TOTAL No. of Riders % of Total	188 34.6%	187 34.4%	87 16.0%	21 3.9%	16 2.9%	12 2.2%	11 2.0%	7 1.3%	4 0.7%	3 0.6%	7 1.3%	541 100.0%	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Plymouth/Kingston** **South Weymouth Station**

Expanded Results

Inner Town \ Outer Town	Weymouth	Abington	Rockland	Norwell	Hanover	Marshfield	Hingham	Whitman	Barnstable	Duxbury	Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	121	54	31	12	9	6	3	0	0	0	13 5.2%	249 37.2%	0
Boston: Waterfront	61	31	9	3	3	10	3	0	0	6	9 7.1%	139 20.7%	3
Boston: Govt. Ctr.	49	16	3	7	7	0	0	3	0	0	4 4.5%	89 13.3%	0
Boston: Back Bay	22	3	3	0	0	0	3	0	3	0	0 0.0%	34 5.1%	0
Boston: S. Boston	16	8	3	0	6	0	0	0	0	0	0 0.0%	32 4.8%	0
Boston: Prudential	16	0	0	6	0	0	3	0	3	0	0 0.0%	27 4.0%	0
Boston: Park Sq.	16	8	0	0	0	0	0	0	0	0	1 4.0%	25 3.7%	0
Boston: North End	11	3	0	0	0	7	0	0	0	0	0 0.0%	21 3.1%	0
Boston: Fenway	6	3	8	0	0	0	0	0	0	0	0 0.0%	17 2.5%	0
Boston: Beacon Hill	6	0	0	0	0	0	0	3	0	0	0 0.0%	9 1.3%	0
Camb: Kendall/MIT	3	3	3	0	0	0	0	0	0	0	0 0.0%	9 1.3%	0
Quincy	6	0	0	0	0	0	0	0	0	0	0 0.0%	6 0.9%	0
Boston: South End	3	3	0	0	0	0	0	0	0	0	0 0.0%	6 0.9%	0
Boston: Charlestown	0	0	0	3	0	0	0	0	0	0	0 0.0%	3 0.4%	0
Boston: Hyde Park	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 0.4%	0
Brookline Village	3	0	0	0	0	0	0	0	0	0	0 0.0%	3 0.4%	0
Braintree	1	0	0	0	0	0	0	0	0	0	0 0.0%	1 0.1%	0
TOTAL No. of Riders % of Total	343 51.2%	132 19.7%	60 9.0%	31 4.6%	25 3.7%	23 3.4%	12 1.8%	6 0.9%	6 0.9%	6 0.9%	28 4.2%	673 100.0%	3
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Plymouth/Kingston**

Braintree Station

Expanded Results

Inner Town \ Outer Town	Braintree	Hanover	Randolph	Holbrook	Scituate	Hingham	Norwell	Duxbury			Other & % of row	Total & % of tot.	Un-known
Boston: Waterfront	11	0	0	0	6	5	0	5	0	0	0 0.0%	27 30.0%	0
Boston: Fin.-Ret.	15	5	0	0	0	0	0	0	0	0	0 0.0%	20 22.2%	0
Boston: S. Boston	11	5	0	0	0	0	0	0	0	0	0 0.0%	16 17.8%	0
Boston: Govt. Ctr.	0	0	10	0	0	0	5	0	0	0	0 0.0%	15 16.7%	0
Boston: Logan	0	0	0	7	0	0	0	0	0	0	0 0.0%	7 7.8%	0
Camb: Harvard Sq.	4	0	0	0	0	0	0	0	0	0	0 0.0%	4 4.4%	0
TOTAL													
No. of Riders	41	10	10	7	6	5	5	5	0	0	0	89	0
% of Total	45.6%	11.1%	11.1%	7.8%	6.7%	5.6%	5.6%	5.6%	0.0%	0.0%	0.0%	100.0%	
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

Old Colony Commuter Rail

1998 Passenger Survey

CTPS
11/29/99

Inner Town/Outer Town Matrix

Line: **Plymouth/Kingston**

Quincy Center Station

Expanded Results

Inner Town \ Outer Town	Quincy	Weymouth	Milton	Braintree							Other & % of row	Total & % of tot.	Un-known
Boston: Fin.-Ret.	21	7	4	4	0	0	0	0	0	0	0 0.0%	35 71.4%	0
Boston: Waterfront	7	0	0	0	0	0	0	0	0	0	0 0.0%	7 14.3%	0
Boston: Govt. Ctr.	0	4	0	0	0	0	0	0	0	0	0 0.0%	4 8.2%	0
Boston: Park Sq.	0	4	0	0	0	0	0	0	0	0	0 0.0%	4 8.2%	0
TOTAL No. of Riders % of Total	28 57.1%	15 30.6%	4 8.2%	4 8.2%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	50 100.0%	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0

12. Summary of Written Comments and Suggestions

Information Contained

In addition to collecting data about the travel patterns and demographic characteristics of commuter rail riders, another purpose of the passenger survey was to elicit opinions about service quality. The direct questions on this subject, the results of which are presented in Chapter 8, partly fulfilled this purpose. The survey form also provided a box for written comments and suggestions. The size of the box limited comments to a maximum of about 100 words, but a few passengers submitted additional comment pages.

All comments that were not strictly facetious were tallied manually. A standard checklist of the most frequent comments was drawn up after a preliminary sampling of comments. Additional space was allowed for tallying comments not included on the standard list. Separate tallies were made for every train on each branch. The final results were entered in a series of spreadsheets, allowing summaries to be made in many ways. In all, there were 1,123 comments from riders on the Middleborough/Lakeville Line and 1,687 from riders on the Plymouth/Kingston Line. Comments from both lines are summarized in spreadsheets at the end of this chapter. The most frequent comments are discussed below.

Not all surveys contained comments, but some contained two or more separate comments. For the two branches combined, the average number of comments per survey was 0.87. The Plymouth/Kingston Line had a higher overall comment rate than the Middleborough/Lakeville Line (0.99 versus 0.73). This difference was mainly a result of heavier ridership on the Plymouth/Kingston Line, which generated more complaints about crowded trains and full parking lots. For comparison, the 1993 survey had an average of 1.5 comments per form. The Old Colony lines had been in operation for slightly under one year when surveyed, so riders had not had as much time to develop opinions about their service as most riders in 1993 would have had.

It should be noted that as with all of the survey responses, the comments on the Old Colony surveys are those of people that were using the service in the Fall of 1998. They do not include opinions of potential riders that chose not to use these lines for various reasons. The comments are largely negative, although often constructive. This was to be expected, as people with complaints are generally more vocal than those satisfied with the *status quo*. It is likely that negative perceptions held by people that use Old Colony service are held to an even stronger extent by those that could use it but do not. Hence, correcting problems cited, where feasible, is important for attracting new riders as well as retaining present ones.

The method used for tallying comments did not permit application of expansion factors at the same level applied to the preceding survey questions. The overall number of completed surveys on both lines combined was equal to 49% of the number of weekday inbound riders at the time. Assuming that the comments are representative, the overall expansion factor for them would be 2.04. In most of the discussion below, relative incidences of comments are measured by comparing ratios of the number of comments to the number of returned surveys.

For purposes of analysis, the tallied comments were divided into 11 categories. In descending order of the number of comments from the two branches combined, these categories and the page on which discussion of each starts are as follows:

- Service and Schedules 12-2
- Train Equipment/Facilities 12-6
- Station Facilities 12-8
- General Praise or Complaints for Commuter Rail 12-10
- Information/Announcements 12-11
- Fare/Ticketing Issues (Excluding Personnel) 12-13
- Personnel 12-20
- Votes for Commuter Rail or Commuter Boat Extensions 12-22
- Feeder Service Connections 12-25
- Train Operations 12-30
- Miscellaneous Comments 12-31

Many of these were divided into two or more sub-categories. Comments in each category are discussed below, in the same order listed above. The top two categories accounted for 63% of all comments, the top four for 82%, and the top six for 91%.

Service and Schedules

The largest number of comments and suggestions received (1,105 out of 2,810) pertained to service and schedules. The number of such comments was equivalent to 34% of all Old Colony survey returns. The actual percentage of respondents that made such comments was somewhat lower, since some surveys contained several different ones.

Requests for More Service

Within the Service and Schedules category, 72% of the comments (798) consisted of requests for operation of more trains. On both branches, the greatest perceived need for additional service was in the P.M. peak. Requests for more A.M. peak service were second on the Plymouth/Kingston Line, followed by more evening and more overall service. On the Middleborough Lakeville Line, requests for more overall service were second, followed by a near tie between evening and A.M. peak.

Some passengers requesting increased service wanted more flexibility in their departure times and some wanted more frequent trips to provide more capacity, but most did not

specify which of these objectives was more important. In the service quality measures discussed in chapter 8 (survey question 24) passengers checked the three measures that they considered most important. Frequency was the measure checked by the greatest number on both branches, and availability of seating was third.

Requests for Changes in Number of Stations Served

At the time of the survey (and continuing at this writing), all trains on the Middleborough/Lakeville Line stopped at all stations on that line except Braintree, which was served by only a few trains. All trains on the Plymouth/Kingston Line served either Kingston or Plymouth and most served all intermediate stops on that line except Quincy Center, which was served only a few trains. One lightly used inbound afternoon train ran non-stop from Halifax to Braintree for operational rather than service reasons.

Requests for Express Service

The second largest number of comments within the Service and Schedules category consisted of requests for operation of some express trains. The greatest number of such requests (53 of 84) was for express trains from Kingston, and most of these were from riders on the three most heavily patronized A.M. peak trains. Based on total ridership and survey response rates, this suggests that nearly 20% of the passengers boarding these trains at Kingston Station felt that there should be some express service there. The second-largest number of requests for express service from a specific station was eight from Halifax, which is the next station in from Kingston. No other individual station on either branch was specified in more than four requests for express service.

Requests for More Trains to Stop at Individual Stations

The greatest number of requests for more trains to stop at an individual station was 34 for Quincy Center. As would be expected, almost all of these came from riders on the Plymouth/Kingston Line, since all Middleborough/Lakeville Line trains already stopped at Quincy Center. The majority of requests for additional trains stopping at Quincy Center came from riders who used the trains that stopped there but would have preferred to use other trains. Most passengers who transferred to the Red Line at Braintree to reach Quincy Center did so during off-peak hours when no inbound Plymouth/Kingston trains stopped at Quincy Center.

The second-largest number of requests for more trains to stop at an existing station was 19, for more service to Plymouth. Only four trains a day stop at Plymouth, all in midday hours. Of the riders requesting more Plymouth service, seven specifically asked for peak-period trains, and some of the others may have had that in mind. Most Plymouth residents who used Old Colony service did not complain about the lack of direct service, however; the number of requests for more Plymouth service was equal to about 10% of the surveys returned by Plymouth residents using other stations. On a related issue, there were five requests for more service to Kingston Station. These were

mostly from passengers who did not like the long headways during midday, when half of the trains terminate at Plymouth instead of Kingston.

Only four passengers, all on the Middleborough/Lakeville Line, asked to have more trains stop at Braintree. This contrasts with the 18 Plymouth/Kingston Line riders who asked to have more trains stop at Quincy Center, and reflects the much greater number of trip attractions in Quincy. In the overall survey results, the number of riders with final destinations in Quincy was 3.5 times as large as the number with final destinations in Braintree. There was no more than one request for additional service at any other existing station on either Old Colony branch.

Requests to Reduce Service at Individual Stations

There are three stations in Brockton on the Middleborough/Lakeville Line, all of which are served by all trains on the line. No other city or town on either Old Colony branch has more than one station, but several communities on older MBTA commuter rail lines have two or more stations. Nine surveys had comments requesting a reduction in the number of stations served in Brockton or in the number of trains stopping at all three stations. Brockton has the greatest total population of any municipality served directly by the Middleborough/Lakeville Line, and is also the largest individual ridership source. Omitting one stop in Brockton would reduce travel time by less than two minutes for passengers using stations further south. The number of requests for reduced stops at Brockton was equal to only 1% of the surveys returned by passengers boarding at Middleborough/Lakeville and Bridgewater.

The next-largest number of requests to reduce or eliminate service at a station was five for Quincy Center, with two coming from riders on the Middleborough/Lakeville Line and three from the Plymouth/Kingston Line. At the average response rate, this implies that about 10 passengers wanted to drop or reduce service to Quincy Center. The number of riders inconvenienced by reducing service at Quincy Center would exceed the number requesting such a reduction. At the time of the survey, Middleborough/ Lakeville trains served 94 inbound ons and 169 inbound offs a day at Quincy Center. Both of these figures have increased since then. Plymouth/Kingston Line trains served 49 inbound ons and 38 inbound offs there at the time of the survey, and these numbers were about the same one year later.

The only other station mentioned in more than one request to reduce or eliminate service was Braintree, with two such requests from each branch. As at Quincy, the number of riders inconvenienced by reducing service at Braintree would exceed the number requesting such a reduction. At the time of the survey, Middleborough/ Lakeville trains served 27 inbound ons and 20 inbound offs a day at Braintree. Plymouth/Kingston Line trains served 90 inbound ons and 152 inbound offs there at the time of the survey. All of these figures have increased since then.

Requests for Additional Stations

Only two locations where Old Colony trains do not currently stop were requested as new stations on the survey returns. There were four requests for a stop at the JFK/UMass Red Line station, which is already planned. At present, Old Colony passengers going to JFK/UMass must transfer to the Red Line at Braintree, Quincy Center, or South Station. The expanded survey results found 37 such riders from the Middleborough/Lakeville Line and 38 from the Plymouth/Kingston Line. These totals equaled 1.4% and 1.1% of the riders boarding trains on the two branches at stations south of Braintree. In contrast, CTPS Red line counts from 1997 show that 5.0% of all riders boarding inbound Braintree Branch trains south of JFK/UMass alighted at that station. With a similar rate of attraction, an Old Colony station at JFK/UMass would serve at least 320 inbound alightings a day.

Home-based school trips accounted for only 6% of all Old Colony trips, but among Old Colony passengers going to JFK/UMass, 75% were going from home to school. (These were destined either for the University of Massachusetts or for Boston College High School.) This indicates that home-to-school trips would also be the main component of ridership alighting at a JFK/UMass Old Colony station. For the ratio of these alightings to all boardings from further south to be similar to the 5% found on the Red Line, the ratio of UMass and BC High students to all other Boston commuters in the Old Colony service area would have to be similar to that in the Red Line service area.

The only other new stop requested was North Quincy, mentioned on two surveys. The expanded survey results found 46 riders transferring from Middleborough/Lakeville trains to the Red Line at Quincy Center to go to North Quincy Station. Another 50 transferred from Plymouth/Kingston trains to the Red Line at either Braintree or Quincy Center to go to North Quincy. In addition, 17 Old Colony passengers traveled to destinations near North Quincy Station by transferring to employer-sponsored shuttle vans. There are no plans to establish an Old Colony stop at North Quincy. The present configurations of the Old Colony tracks and the Red Line tracks, platform, and parking facilities there would make addition of an Old Colony platform very difficult and costly.

Other Comments/Suggestions on Service and Schedules

In addition to the comments and suggestions discussed above, 10 different comments from about 130 Old Colony surveys were placed in the Service and Schedules category under the sub-category Other. The four most frequent accounted for 93% of these.

The most frequent Other comment, made by 1.4% of respondents, was summarized as "trains are late too often." This was only half the average rate for similar comments on the lines surveyed in 1993. Such comments are often influenced more by delays experienced in the days immediately preceding a survey than by long-range experience.

The second most frequent Other comment on Service and Schedules, made by 1.1% of the respondents was summarized as "different train times would be more convenient." This comment was made by people that indicated that they were generally satisfied with the present service frequency, but that they would be better served by different arrival or departure times. Overall, riders on the Plymouth/Kingston Line had a much lower rate of requests for different train times than riders on the Middleborough/Lakeville Line (0.5% versus 1.8%), but both represented small minorities. The lower rate on the Plymouth/Kingston Line was partly a reflection of the greater amount of service on that branch (15 round trips a day versus 12), and partly a result of differences in specific Boston arrival and departure times offered on the two branches. Because of shared tracks between Braintree and Boston, each Middleborough/Lakeville train is scheduled to run at least 10 minutes ahead of the next Plymouth/Kingston train. This apparently results in optimal arrival and departure times for a slightly higher proportion of Plymouth/Kingston Line riders.

The third most frequent Other comment on Service and Schedules was summarized as "overall running times are too long/trains too slow." This comment was made by 0.5% of respondents on the Middleborough/Lakeville Line, but by 1.4% on the Plymouth/Kingston Line. Both branches are about the same length and have similar end-to-end scheduled times. The lower proportion of Middleborough/Lakeville riders complaining of long running times or slow speeds was partly a result of a higher percentage of riders on that line having been diverted from other mass transit alternatives and using those as a basis of comparison.

The only Other comment on Service and Schedules appearing on more than three surveys was summarized as "Trains run too slow approaching terminals." There were 14 such comments, mostly from riders on two of the A.M. peak Middleborough/Lakeville trains. Based on the schedules in effect at the time, these trains would have been somewhat more likely than others to be delayed outside South Station waiting for platform space to clear.

Train Equipment/Facilities

The second-largest comment category, with 659, was Train Equipment/Facilities. The number of comments in this category was equal to 16% of survey returns on the Middleborough/Lakeville Line and 24% on the Plymouth/Kingston Line, for a combined average of 20%. As in other categories, individual respondents sometimes accounted for more than one comment, so the actual percentages of respondents that had Equipment comments were somewhat lower than these figures.

Complaints Related to Seating

Within the Train Equipment/Facilities category, the largest sub-category, Complaints Related to Seating, accounted for 85% of the comments. This was the equivalent of seating complaints by 13% of Middleborough/Lakeville Line respondents and 21% of

Plymouth/Kingston Line respondents. The higher rate on the latter line was related to higher peak-period train loadings.

Of the complaints about seating, 52% were in the form of calling for trains to have more cars or for more double-decker cars. The reason for such requests, whether stated or implied, was to get more seats. Another 42% of the complaints about seating stated only that not enough seats were available.
Part of the shortage of seating was a result of inefficient use of the seating provided rather than an actual lack of seats. Some of the survey distributors reported that passenger loads were unevenly distributed throughout individual trains. Seats in the cars that would stop nearest to the inner ends of the South Station platforms filled first, and some cars at the outer ends had empty seats at the peak load point. (Subsequent ridership increases have filled up more of these empty seats.)

Most of the remaining seating complaints pertained to riders being allowed to take up more than one seat each (4%) or of seats being too narrow or uncomfortable (3%). These two complaints are related, as passengers who find the seats too narrow are inclined to place articles next to them in order to discourage others from sitting there. It is not unusual to have standees in a car in which the two outer places on a three-person seat are occupied but the center place is vacant.

Complaints about Temperature Control/Ventilation

The second-largest sub-category under Train Equipment and Facilities was Complaints About Temperature Control (32). Such complaints were made by only 0.8% of respondents, compared with 2.5% of those in the 1993 survey. This was partly a result of the rolling stock on the Old Colony Lines all being either new or rebuilt at the time of the service startup. Also the Old Colony survey was conducted in September, when neither substantial cooling or heating was needed, but the 1993 survey was done in late Fall, including several cold days. Of the 32 complaints about temperatures on Old Colony cars 14 were for cars being too hot, 12 for cars being too cold, and six for malfunctioning temperature controls without elaboration.

Other Comments

Aside from comments about seating and temperature control, about 25 different comments related to Train Equipment/Facilities were recorded but only three of these appeared on more than four surveys each. The most common of these, on 11 surveys, was that cars should be cleaned more often. Two surveys made the related comment that trash receptacles should be provided on trains.

Seven surveys requested that more train doors be opened at stations. The cars normally assigned to Old Colony service have electrically operated doors, and all of the doors on the platform side of the train are opened and closed remotely from a single location. Because of equipment shortages, cars with manually operated doors are sometimes used. Either this or malfunctioning electric doors would explain these complaints.

Seven surveys included requests to have newspapers, coffee, or other refreshments sold on board trains. At one time, it was common practice for vendors of such items to walk through outbound trains at South Station before departure, but they did not remain on board during trips. Reduced aisle width and presence of standees would make similar on-board vending less practical now, and in any case the demand for coffee and newspapers on-board is likely to be heaviest inbound. Inclusion of vending areas at fixed locations on trains would reduce space available for seating and would add a hazard of passengers trying to move through crowded cars with hot drinks. Providing concession stands or vending machines at boarding stations would be a more practical solution, but would not help passengers arriving at the last minute.

Station Facilities

The Station Facilities category accounted for 388 comments, equivalent to 12% of all Old Colony survey returns and with little difference between the two branches. This was a much lower rate than those on the lines surveyed in 1993 (33% of North Side survey returns and 44% of South Side returns.) All of the stations on the Old Colony Lines except South Station had been newly opened a little less than one year before the survey was conducted. It would be expected, therefore, that the Old Colony stations would be in better condition than the average of those used by survey respondents in 1993 and would generate fewer complaints.

On the Old Colony Lines 74% of the comments within this category were related to parking facilities and 26% to waiting areas and platforms. The 1993 survey comments were much more evenly divided between these sub-categories.

Parking Facilities

Insufficient Parking Available

Nearly two thirds of the comments about parking facilities (181 of 287) consisted of complaints related to insufficient parking capacity at stations. This was equivalent to complaints from 5.7% of all survey respondents. Since the survey was conducted ridership has increased, but parking capacity has not been expanded, so a higher complaint rate would be expected now. Middleborough/Lakeville Station, which was the most heavily patronized station on the line terminating there, had the most complaints about insufficient parking, at 73. This was equivalent to 15% of the survey returns from passengers boarding there, but some came from passengers who boarded at other stations to find parking. The only other stations with more than eight complaints each about parking shortages were Halifax (29) and Kingston (24).

Parking Should Be Free, Less Expensive, or Easier to Pay For

After complaints about parking capacity, the most common group of comments about parking facilities consisted of complaints or suggestions related to parking fees. Of 43 such comments, only 16 called for total abolition of parking fees. The others included

suggestions such as including parking fees in pass prices or offering monthly parking stickers. Some of the passengers making such comments also wanted to have lower parking fees. Others did not object specifically to parking costs, but wanted a more convenient method of paying.

At most Old Colony Station parking fees are deposited in collection boxes at some distance from the parking spaces. Each box has slots with numbers corresponding to those of a particular group of spaces, and passengers must take care to deposit the fees in the correct slots to be credited. The slots will accept either bills or coins, but at most stations there is no place to get change. The payment process delays passengers in getting from their cars to platforms, especially when several passengers arrive simultaneously at one collection box. The advantages of such a payment system from the standpoint of parking lot operators are that attendants are not needed for individual lots, the money can be emptied from a few central locations rather than from numerous parking meters, and the collection devices require much less maintenance than meters.

Unsafe Parking/Traffic Flow

The third most common group of comments about parking facilities consisted of complaints about unsafe parking patterns or traffic flow in the lots (30). Several of these complaints pertained to problems with backups of cars leaving lots after arrivals of outbound trains or cars speeding within lots to be at the head of exit lines. The largest number of traffic flow complaints for an individual station was five for Kingston, and several others may have been referring to Kingston implicitly. Kingston station had by far the largest total number of boardings of any Old Colony station at the time of the survey, but the number of complaints about traffic flow was equivalent to under 2% of the survey returns from passengers boarding there.

Inadequate Protection From Vandalism and Theft

The fourth-largest group of comments about parking facilities consisted of complaints of inadequate protection from vandalism and theft of cars. A total of 19 such complaints were received, with 12 of these citing specific stations, all on the Plymouth/Kingston Line. Halifax had the largest number of such complaints, at five, followed by Abington at four. These were also the two stations with the greatest numbers of complaints about lack of security on platforms and in waiting areas.

Other Comments on Parking Facilities

No other comment or category of comments pertaining to parking facilities appeared on as many as ten Old Colony surveys. Complaints about inadequate snow removal led with seven, four of which were for South Weymouth. These complaints would have had to be based only on experience from the winter of 1997-98, since the Old Colony lines were not in operation in prior winters and the survey was conducted well before the first snowfall of 1998-99. In the 1993 survey, which was also conducted in the Fall

well before any snowfall, there were no complaints about snow removal from the majority of stations, and only two stations had more than 10 complaints each.

Miscellaneous other comments about parking facilities appeared on only one or two surveys each.

Waiting Areas and Platforms

Inadequate Shelter

The most common complaint about Waiting Areas and Platforms on the Old Colony Lines, as on the 1993 survey lines, was that stations have inadequate shelter. This comment appeared on 22 Old Colony surveys, naming five different stations. Middleborough/Lakeville generated the largest number of such complaints by far, at 15, with each of the others named getting only one or two complaints.

Inadequate Security

Complaints about inadequate security at platforms and waiting areas were close behind inadequate shelter, with 21 comments. Five stations were cited for inadequate security, but only one of these (Bridgewater) was also mentioned for inadequate shelter. Halifax had the largest number of inadequate security complaints, with eight, followed by Abington, with four. These were also the two stations with the greatest numbers of complaints about inadequate protection from vandalism and theft in parking areas. The others listed had one to three complaints each. Halifax is among the more isolated Old Colony station sites. It is unclear whether security problems at any of the stations listed were based on actual experiences or merely perceptions.

Other Comments on Stations and Platforms

No other comment or category of comments pertaining to stations and platforms appeared on more than eight Old Colony surveys. Complaints about dirty platforms and complaints about lack of enforcement of no-smoking regulations at stations were tied at eight each. These were followed by complaints about unsafe boarding conditions and about insufficient working telephones at stations (6 each), inadequate station lighting (5), and assorted complaints about South Station (5). Four surveys had complaints about ventilation of locomotive exhaust at stations, with three of these being for Bridgewater. Another 16 surveys contained various comments, complaints, and suggestions about platforms and waiting areas, with no individual comment appearing more than three times.

General Praise or Complaints

The fourth largest comment category was general praise or complaints for commuter rail. These comments consisted mostly of single words or short sentences, such as "Keep up the good work," "Service is great," or "Service is terrible." Positive comments

in this category ran far ahead of negative comments, at 160 to 3. As can be seen from the comments in other categories, this was not because opinions of commuter rail were overwhelmingly favorable. Rather, it was because people with complaints or constructive criticism were usually very specific in their written comments, whereas people that were generally pleased did not feel a need to add specific comments to their ratings in the Service Quality section.

Overall, 5% of Old Colony survey respondents made comments of general praise, with a slightly higher rate on the Middleborough/Lakeville Line than on the Plymouth/Kingston Line. This was very similar to the result of the 1993 survey in which 4.5% of respondents made general positive comments.

Information/Announcements

The fifth-largest category, with 127 comments, was Information/Announcements. The number of comments in this category was equal to 3.6% of all the survey returns, or less than one third of the comment rate in the same category in the 1993 survey.

Complaints About Audible Announcements

The largest number of Information/Announcements comments were placed in the sub-category of Complaints About Audible Announcements. Of the 43 comments received, 21 complained about failure of conductors to announce stops. The majority of these complaints came from the Plymouth/Kingston Line, where trains were generally more crowded than those on the Middleborough/Lakeville Line.

Train staffing does not provide a conductor or assistant conductor in every car. Because of close station spacing, the only practical way to announce station arrivals throughout every car is to use the public address (PA) system. To do this, however, someone must get to a vestibule with a working microphone. If tickets are still being collected, or if many people are standing in the aisles, it can be difficult to make station announcements in time. Even if announcements are made, mechanical problems may keep them from being transmitted to all cars. Without checking each car at the start of the trip, there is no way of determining if the PA system is working properly.

After complaints about failure to announce stops, the next most common complaint in this sub-category was that PA announcements on trains are unintelligible (17). Some of this problem might be solved by providing personnel with better training in the use of PA equipment. Other problems are the result of defective or poor-quality microphones or speakers, and can be remedied only by repairing or replacing them.

There were only three complaints of PA announcements in stations being unintelligible. Most of the in-station announcements to Old Colony passengers would be made at South Station, where announcements are typically audible and clear but not objectionably loud.

Complaints about Train Status/Delay Information

Within the Information/Announcements category, the second-largest sub category, was Complaints about Train Status/Delay Information, with 27 comments. About two thirds of these were complaints that no explanations are given for delays. The remainder asked that more information about delays be provided on trains or in stations. These figures understate the level of dissatisfaction. One of the service attributes rated in the Service Quality section of the survey was explanation of delays. Ratings of Very Poor or Below Average were applied by 12% of the respondents to this question on the Plymouth/Kingston Line and by 24% on the Middleborough/Lakeville Line.

Signage and Monitors

Comments or suggestions about signage or monitors in stations made up the third largest sub-category in Information/Announcements at 21. Most of these called in some way for better directions to locate Old Colony trains at South Station. Old Colony trains usually depart from one of the three tracks nearest the east side of the station (tracks 11 to 13). Within this area track assignments for individual trains can vary from day to day, and departures are sometimes made from one of the other tracks for operational reasons.

A large information board suspended over the South Station concourse shows destinations and departure tracks when trains are ready for boarding, but the side of the board with the information is not visible from the area where most passengers wait for trains. Destinations of individual trains are also posted over their departure gates, but these signs cannot all be seen from one location. Passengers who choose to wait outside the concourse, or who enter the platform area directly from streets, are provided with no visual information about departure tracks except from monitor screens. The print on these is small, and hard to read in many light conditions. Public address announcements of departure tracks are made several times for each train outside as well as inside the concourse, but passengers who have just arrived in the station cannot be sure if the final boarding calls for their trains have already been made.

Three of the comments asked that departure tracks be posted earlier than they are. Departure tracks are usually posted 10 to 15 minutes prior to train departures, providing ample time for anyone in the waiting room to get to a train before it leaves. When departures are posted on shorter notice, it is usually for reasons such as late-arriving equipment requiring a last-minute decision on which track is going to be used. In such cases, actual departure time may be held slightly beyond scheduled time.

Many of the Old Colony survey respondents had not been commuter rail riders prior to the startup of Old Colony service, and may not have been as aware of the various ways of obtaining departure track information as more experienced riders would have been. Nevertheless, only a small percentage of the survey respondents had complaints in this

area. Signage was not included in the Service Quality measures, so no alternate rating was provided.

Comments/Suggestions About Printed Schedules

Comments and suggestions concerning printed schedules were slightly below comments about station signage and monitors, at 20. The greatest number of comments about schedules (8) concerned inability to obtain copies of schedules at boarding stations. Most did not mention specific stations where this was a problem. In the Service Quality section of the survey, ratings of Very Poor or Below Average were applied to availability of schedules by 13% of the respondents to this question on the Plymouth/Kingston Line and by 19% on the Middleborough/Lakeville Line. This is discussed further in chapter 8.

There were four complaints about schedules being difficult to read. Otherwise, each distinct comment about printed schedules appeared on only one or two survey returns.

Complaints About Telephone/Internet Information System

Only nine surveys included written comments about the telephone or Internet information system, all complaints. About half of these expressed annoyance with the telephone recording. In the Service Quality section of the survey, telephone information was among the less favorably rated service measures, but was also rated by a much smaller percentage of riders than any other measure. This indicates that the majority of Old Colony riders rarely or never have occasion to obtain information via telephone or the Internet. These information sources are most likely to be used by infrequent or first-time riders, who may decide not to use the trains if they are unable to obtain schedule and fare information easily.

Other

An additional seven surveys had comments related to information, announcements or public relations that did not fit into any of the sub-categories above, but none of these comments were repeated on more than one survey.

Fare and Ticketing Issues (Excluding Personnel)

The sixth-largest comment category, with 114 comments, was Fare and Ticketing Issues (Excluding Personnel). The number of comments in this category was equal to 3.5% of all returns, or less than half the rate for the same category in the 1993 survey. Fare and Ticketing Issues had the fewest comment of any category included the top 90% of all comments.

Complaints about Fare Levels

General Complaints

Nearly half of the comments on fare and ticketing issues (54 of 116) pertained to fare levels. The largest number of these (15) were general complaints that fares were too high. The survey results do not reveal how many potential riders may not have been using Old Colony service because of the fare levels. Since cost is one of the factors affecting mode choice, the perception that fares are too high is probably more widespread among people who could use commuter but do not than among those who do use it.

Complaints about On-Board Purchase Surcharges

Next-largest were complaints about on-board fare surcharges being unfair, inadequately posted, or applied with insufficient warning (10). To speed up ticket collection, it has long been a standard railroad practice to charge more for tickets purchased on trains than for tickets purchased in advance when tickets are available at the boarding location. Since 1991, the surcharge on all MBTA commuter rail lines has been $2.00 on peak-hours trains and $1.00 on off-peak trains, regardless of fare zone.

In practice, collection of surcharges is not uniformly enforced. Some conductors merely warn passengers that a surcharge will be collected for future offenses, while others almost always collect it. Passengers eligible for half fares (senior citizens, riders with disabilities, children, or pupils) are seldom required to pay surcharges. Interzone fares are not subject to surcharges, because interzone tickets are only sold on trains.

Information on actual collection of surcharges on the Old Colony lines has not been obtained. A one-day sample from 1994 showed that for the commuter rail system as a whole, surcharges were applied to about 1% of tickets sold on board trains during peak hours, and to about 2.5% of sales during off-peak hours. On-board ticket sales, in turn, accounted for only about 6% all rides.

The fare payment question on the Old Colony survey did not distinguish between off-train and on-train sales of single-ride tickets, but in 1994 on-board sales accounted for 44% of all weekday single-ride tickets. With similar rates, on-board sales would have accounted for about 7.5% of all inbound Old Colony riders at the time of the survey, or about 500 a day. The number was probably smaller, however, as there was a local ticket sales outlet for every Old Colony station, but not all stations served in 1994 had nearby ticket outlets. Since 10 Old Colony survey respondents, representing an estimated 20 riders, complained of surcharges, this suggests that they have been applied to a higher percentage of on-board sales on Old Colony lines than on older lines. This is as would be expected, since most Old Colony riders should have been able to buy tickets before boarding.

Requests for Reductions in Specific Fares

College Students

The remaining comments on fare level consisted of requests for reductions in specific fare categories. The largest number (7) called for student fares to apply to college students. About 300 Old Colony riders, or 4.5% of the total, listed their primary occupations as Student and their ages as 18 or over. Most of these had origins or destinations indicating that they were college students, though a few may still have been in high school. The long-standing MBTA fare policy has been for student half fares to apply only through high school, with college students being required to pay adult fares. Colleges can choose to subsidize part of the cost of monthly passes for their students, but most do not. College students are more likely than younger students to have some form of part-time employment, and thus are more able to afford full fares.

Rapid Transit Transfers for Single-ride or 12-ride Tickets

Five passengers requested that free transfers to rapid transit be allowed with single-ride or 12-ride tickets. The survey results showed that about 300 passengers who used adult full-fare or 12-ride tickets transferred to rapid transit lines. Applying the average survey expansion rate, 96% of them made no comments about the transfer fares. The transfer riders accounted for 12.5% of all riders using such tickets, and for 4.5% of total Old Colony riders.

At present, only monthly passes include free transfers to other MBTA modes. Originally, a commuter rail pass with transfer privileges was a separate option with a higher price than a pass not including a transfer. Starting in 1982 all commuter rail passes included free rapid transit transfers and also included free transfers to other MBTA services. The provision of free transfers for commuter rail pass holders is still controversial, since it is inconsistent with the rest of the MBTA fare structure.

Standees

Four riders asked that discount passes be available for standees. At least at the time of the survey, standee conditions were usually the result of passengers not being uniformly distributed among train cars, or not using center places on three-person seats rather than of insufficient seating. A person riding as a standee on some trips would not necessarily stand every day or in both directions on the same day or for an entire trip. As far as is known, no major U.S transit system offers reduced fares to standees.

Pass Users/Senior Citizens/Passengers on Delayed Trains

There were three requests each for larger discounts for pass users, for half-price monthly passes for senior citizens or passengers with disabilities, and for free rides when trains are late. No other requests for fare reductions appeared on more than one survey return each.

At present, commuter rail passes in most zones are priced at the equivalent of 32 one-way trips. (The exceptions, resulting from past fare adjustments, are 32.8 in Zone 3 and 31.3 in Zone 4.) The survey results showed that on average pass users rode Old Colony trains 4.9 days per week. At this rate, a passenger making one round trip on each day that any trips were made would make 41 to 43 trips per month. Therefore, the average pass user gets a discount of at least 22% off the one-way fare for the commuter rail portion of the trip alone. Pass-users transferring to or from other MBTA modes get much larger discounts. Passengers who do not ride often enough to make passes cost-effective can still get a discount of 16.7% by using 12-ride tickets instead of one-way tickets. Since overall commuter rail fares cover only about 40% of operating costs and service is well patronized, further discounts for pass users are unwarranted.

All riders aged 65 or older and passengers with disabilities presenting specified documentation pay only half the adult cash fare (rounded down to the nearest five cents) for all commuter rail trips. The survey results show that the average user of these reduced fares rode Old Colony lines 2.1 days per week, or an average of 17 to 19 one-way trips per month, assuming one round trip on each day service was used. The cost of a half-price pass relative to a single-ride half fare would require 31 to 33 round trips per month to break even. Therefore, the average half-fare rider would not get nearly enough use from a half-fare pass to justify buying one. Senior citizens and riders with disabilities currently pay 20 cents to ride any rapid transit line, regardless of the full fare. A commuter rail pass could be used instead of this fare, but the break-even point compared with cash fares would still be 27 to 29 one-way trips per month.

At the reported trip frequencies, only about one third of the passengers who paid half fares, or a total of about 90 riders, would have made enough trips just to break even using passes. The majority of these (70) were making home-to-work trips. Since they were already getting discounts of 50% or slightly more on the commuter rail portions of their trips, and discounts of 76% or more on the rapid transit portions, additional discounts do not appear to be needed.

Provision of free rides for late trains would be very difficult to carry out even if it were a good idea. First, there would have to be a standard for how late a train would have to be before requiring a free ride. Then, there would need to be a way to determine whether each train had exceeded that standard. Lateness is not always constant throughout the length of a trip, so the standard would have to be applied to arrival time. On inbound trains, most passengers alight at South Station, but it would often not be known definitely that a train would arrive late until after all or most of the fares had been collected. Therefore, the only way to implement free rides would be to issue coupons for cash rebates or for future free trips. Because of heavy alighting volumes in A.M. peak hours when most rides are made, it would be practically impossible to distribute coupons in such a way that each passenger from a late train was compensated for the fare paid. The largest percentage of riders on both Old Colony branches (59% on the Middleborough/Lakeville Line and 57% on the Plymouth/ Kingston Line) use monthly passes. For such riders, coupons for free rides would be of no benefit, so they

would have to get either cash rebates pro-rated to average pass fares or reduced prices on future passes.

On outbound trips, alightings are distributed over the length of each route. Trains may be on time at some stations and late at others. It would not be feasible to monitor times at every station and distribute coupons to riders alighting at those stations where trains were late.

Suggestions for Improving Ticket Sales Procedures

The second-largest category of comments on Fares and Ticketing consisted of suggestions for improving ticket sales procedures. This included 23 comments.

Ticket Outlets Should Accept Checks and Credit Cards.

The most common suggestion in this sub-category (7) was that ticket outlets should accept checks and credit cards. This was also a common suggestion in the 1993 survey responses. At present (as was the case at the time of both surveys) Master Card and Visa can be used to purchase monthly passes at North Station, South Station or Back Bay, but most other ticket outlets accept cash only. No policy on personal checks is stated in timetables. Also policies on use of cash or checks to purchase tickets at the Boston stations are not stated.

Other than South Station and Quincy Center, none of the ticket outlets on the Old Colony lines are operated directly by either the MBTA or Amtrak. Most of the outlets are at convenience stores, newsstands, coffee shops, or other small businesses. These outlets typically receive commissions of 3% to 5% of the revenue from the tickets and passes that they sell. Credit card companies retain a percentage of the total sales price of any merchandise charged. Hence, if private ticket outlets accepted credit cards for tickets or passes they would be left with little or no compensation out of their commissions on such transactions. If the MBTA were to reimburse ticket outlets for credit card fees, net revenue to the MBTA on these sales would be reduced by both the commissions and the fees. There would also be additional administrative costs to maintain separate records of cash and credit sales.

Over 90% of Old Colony riders travel to or from South Station. Therefore, most riders who want to use checks or credit cards to purchase passes can do so there. The most expensive 12-ride ticket needed on the Old Colony lines, for Zone 8, costs $40.00, which is not a large amount of cash for most passengers to be carrying. Passengers who do not travel to or from South Station would pay interzone fares for the Old Colony portions of their trips. No 12-ride or 10-ride interzone tickets are sold, so the choices are single-ride tickets or passes. A total of about 150 interzone riders used passes at the time of the survey. These are the riders that would have been inconvenienced most by having to pay cash at suburban ticket outlets.

Passes Should Be Sold at All Stations

The second-largest number of comments in this sub-category (4) was that passes should be sold at all stations. Another two surveys commented that suburban ticket outlets are not conveniently located. At the time of the survey, and at present, printed schedules showed one or two ticket sales locations within the same city or town as each station on both Old Colony branches. This was more coverage than provided on most of the older MBTA commuter rail lines. Most of the sales locations were not directly at the commuter rail station locations, however, making it necessary for passengers to make extra stops to purchase tickets or passes. The proximity of the ticket sales outlets to stations depends on the ability of the MBTA to find local businesses that are interested in handling tickets, that are normally open during the hours of highest demand for tickets, and that can provide adequate security and records for unsold tickets and passes and for proceeds of sales.

Most of the Old Colony stations do not currently include any buildings suitable for location of ticket offices. Because of the high proportions of passengers using passes and multiple-ride tickets, the number of ticket sales at any individual station on a given day would be fairly low. At the time of the survey, only three stations had more than 70 boarding passengers a day using single ride-tickets. These were Kingston (231), Middleborough/Lakeville (157), and Bridgewater (113). Likewise, these were the only three stations at which total revenue from sales of such tickets, if purchased before boarding, would have exceeded $200 a day. (The totals for the three stations, in the same order would have been $754.00, $580.00, and $376.25.) Pass sales all occur in the first and last few days of a month, and sales of 12-ride tickets vary depending on how quickly they are used up. Therefore, at most stations, wages for a person employed exclusively to sell tickets would equal a high percentage of the typical daily revenue. To generate additional revenue, it would be necessary for ticket sellers to sell other items such as coffee and newspapers. This in turn would add to the size of the structures needed. Given the problems cited above and low level of complaints, institution of pass and ticket sales directly at stations is unlikely to occur in the near future.

Use Automatic Ticket Vending Machines

The only other suggestion made for improving ticket sales procedures made by more than one rider was to have automatic ticket vending machines. To be useful to more than a small sub-group of riders, a ticket vending machine for MBTA commuter rail lines would need to be capable of dispensing large number of different choices of tickets and of accepting many different payment modes and amounts. Several other North American commuter rail systems use ticket vending machines, with degrees of complexity varying with system size and range of fare options. Many of these systems operate in areas that do not experience extreme winter weather such as that in the Boston area. Ticket machines for MBTA commuter rail lines would probably need to be installed in more enclosed areas than are currently available at most Old Colony stations.

If the comments about lack of security at several of the Old Colony stations are valid, vandalism to or theft from ticket machines could prove to be a problem. If they accepted cash, these machines would be more tempting targets than the parking fee collection boxes, as the amount of money deposited from each transaction would be much larger.

Complaints About Lengths of Ticket Lines

The third-largest group of comments about fare and ticketing issues consisted of complaints about lengths of ticket lines, with 20. In proportion to total survey returns, this was very similar to the results of the 1993 survey, implying that conditions have neither improved nor worsened in the meantime. Of these complaints, 12 were about lengths of lines in general, and six about lines at South Station specifically.

Lines at South Station are usually longest during P.M. peak hours, and particularly on days when passes are sold. Because of the short durations of the daily peaks and the limited number of days with heavy pass sales, it is difficult to arrange work assignments of ticket sellers to cover peak demand without being overstaffed at other times.

At South Station there are usually several ticket windows open. Passengers wait in a common line for the next available window. There is usually no separation of commuters from intercity train passengers. Long-distance passengers who have complicated itineraries or who are unfamiliar with the services offered by Amtrak can tie up ticket windows for much longer times than required for typical commuter rail ticket sales. Assigning some windows to sell only commuter rail tickets, as is done at stations in some other large cities that serve both commuter and intercity trains, might help reduce this problem.

At typical Old Colony suburban ticket outlets, railroad passengers must wait in check-out lines along with customers who are not purchasing railroad tickets at all. No information is available on the length of time passengers wait in line at such locations. At Kingston Station, which had the largest all-day total number of riders using single-ride fares, the greatest number of such fares on any individual train was 60. Of these, 39 reported that they used Old Colony service less than one day a week, and another 10 that they used it only one day a week. Many of them probably purchased their tickets on the train rather than at the local ticket outlet.

Passes or Certain Tickets Not Available at Some Locations

The final sub-category of comments about fare and ticketing issues consisted of complaints about passes or certain ticket forms being unavailable at some stations. There were 17 such complaints, naming six different stations out of the total of 16 Old Colony station outside Boston, The number of complaints about individual stations ranged from one to four. Printed schedules listed one or two ticket outlets for each of the stations named, with hours of operation that would have enabled passengers for all

but the first train of the day to purchase tickets before boarding. Therefore, the complaints must have resulted either from passengers being unable to find the ticket outlets or from outlets running out of certain forms of tickets or passes. Because of growth in ridership, some outlets may have needed to have their supplies increased. Based on the relatively small number of comments, unavailability of tickets or passes was not a major problem and was no more prevalent on the Old Colony lines than on the lines surveyed in 1993.

Personnel

The seventh-largest comment category, (and the largest with fewer than 100 comments) was Personnel, with 84. The number of comments in this category was equal to 1.5% of all returns on the Middleborough/Lakeville Line, but for 3.6% on the Plymouth/ Kingston Line.

Commendations for On-Board Personnel

All but four of the comments pertained to on-board personnel (conductors or assistant conductors). Overall, there were more favorable than unfavorable comments, with 44 praising the personnel in general and 10 citing specific individuals. Personnel on the Plymouth/Kingston Line received more commendations both in absolute terms and in proportion to survey returns than those on the Middleborough/Lakeville Line. It is unclear if this was more a reflection of actual differences in performance of personnel on the two branches or of differences in the inclination of riders on the two branches to take the time to write in favorable comments. In the service quality measures, the ratings for helpfulness of personnel on the two branches were very close.

Complaints About On-Board Personnel

On the negative side, the largest number of complaints (7) was that conductors do not check to make sure that all passengers have the correct tickets for the zones they are riding to. Because of heavy loads it is not always possible for conductors to check all passes or collect all tickets on every trip. This is a more common problem on outbound trips than on inbound ones. Inbound boardings are distributed over the length of each line. Conductors place seat checks as they examine passes and collect tickets, so they can easily find passengers who have just boarded and have not had their fares collected. Passengers with tickets or passes for lower fare zones than those of their boarding stations can be required to pay the interzone fare for the difference. Outbound, most passengers board at South Station. Conductors proceed through each car from end to end, but do not usually issue seat checks. It is not always possible to collect all tickets from passengers going to the innermost stops before they leave the train. Also, there is no system to prevent passengers from riding to more distant stations than they are ticketed for.

Most passengers who make round trips return to the same stations that they started from. Because of the high probability of having passes checked shortly after boarding

inbound trains, most pass-users on these trains can be expected to have the correct passes. Therefore, it is unnecessary to check all passes outbound to prevent fare evasion. Overall 59% of the riders on the Middleborough/Lakeville Line and 57% on the Plymouth/Kingston Line reported that they were pass users. A small number of ticket users cheat on fares by using the correct tickets inbound but using tickets for lower-numbered zones than they are going to outbound. If they ride the same trains frequently, there is a chance that conductors will remember which stations they use and notice that their tickets do not match, however.

Wrong-zone ticket use could be prevented by issuing seat checks outbound as well as inbound and having them color-coded or otherwise marked to allow conductors to easily spot and collect all checks for the next approaching zone. The extra time to do this could require assignment of additional assistant conductors to some peak trains. Unless there is evidence of widespread fare evasion, the extra cost of preventing it could exceed the amount of revenue being lost.
The only specific complaint about on-board personnel other than not checking all tickets was that some lacked courtesy or skill in dealing with the public. There were seven such complaints, including one complaining even more specifically of conductors yelling at passengers who needed to pay on-board fare surcharges. Most of the complaints came from riders on A.M. peak Plymouth/Kingston trains, even though these were the same trains that generated the most commendations for on-board personnel. This could be either a result of different performance of different employees on the same train, or of differing perceptions among passengers.

In proportion to the total number of survey returns, the number of complaints about on-board personnel, either general or specific in nature, was only about one third the rate of similar complaints in the 1993 survey. This may have been because Old Colony trains had a higher proportion of recently hired younger employees who still retained their initial enthusiasm for their jobs.

Complaints About Off-Train Personnel

The number of written comments about off-train personnel was negligible, consisting of four complaints about suburban ticket agents. These were mostly related to lack of knowledge on the part of the ticket sellers about fares and schedules. As discussed elsewhere in this chapter, none of the suburban ticket outlets on the Old Colony lines except at Quincy Center are operated directly by the MBTA or Amtrak. Instead, tickets and passes are sold at convenience stores, coffee shops newsstands, or other small businesses. Sales of tickets and passes make up only a small part of their daily transactions, and an individual employee of one of these businesses may have little occasion to ever make such sales. Under these conditions, it is understandable that some passengers would have dealt with vendors who were unfamiliar with fares and schedules.

One solution would be to furnish each vendor with a placard showing the information most likely to be asked for at the specific sales location. This would avoid having to take the time to look up schedules and fares in the public timetables.

Votes for Commuter Rail or Commuter Boat Extensions

The eighth-largest number of comments (68) consisted of statements of support for various commuter rail or commuter boat extensions or restorations. As would be expected, most of the requests were for extensions to locations that currently originate some Old Colony trips but have no direct commuter rail service. The level of interest expressed in such extensions was much smaller than the Old Colony ridership from the areas they would serve, however. Since the surveys were distributed only to riders on the Old Colony lines, the extension requests do not provide a measure of potential diversions to the extensions from other travel modes or from other MBTA commuter rail lines. Likewise, they do not establish the relative priorities of all potential commuter rail extensions, since many of these would not serve riders who would have been using Old Colony trains at the time of the survey. There were no statements of opposition to extensions on the surveys.

Taunton/New Bedford/Fall River

The most frequently requested commuter rail extension was to Taunton, New Bedford, and Fall River, with 27 requests. New Bedford and Fall River would be served by separate branches of an extension that would pass through Taunton and divide south of there. It would be possible to run service to either New Bedford or Fall River only, or to run only as far as Taunton, but present plans call for serving all three. The expanded survey results showed 70 Old Colony riders from New Bedford, 11 from Fall River, and 65 from Taunton, or a combined total of 146. Applying the average survey expansion rate to the 27 extension requests implies that only about one third of the Old Colony riders from these communities felt strongly that more direct service was needed. Some others may have been unaware that there was any possibility of getting more direct service.

In addition to the requests for a New Bedford commuter rail extension, there were three requests for a commuter boat from New Bedford to Boston. As far as can be determined, there has never been any scheduled passenger boat service between New Bedford and Boston, and no feasibility studies have been done. The most direct routing would be through the Cape Cod Canal. Even then, the total distance would be much longer than that of a rail extension. The average speed of a boat would be much lower than that of a train, both because of the lower maximum speed capability of a boat and because of restrictions necessary to protect smaller craft from the wake. For these reasons, boats could not provide a practical means of commuting between New Bedford and Boston.

Wareham/Cape Cod

The second-largest number of requests was for a commuter rail extension to Wareham or Cape Cod, at 23. Of these, the greatest number (8) suggested an extension to Buzzard's Bay, followed by six requests for service to unspecified Cape locations. There were two requests for service to Wareham, and one each for service to Sandwich and Hyannis. The expanded survey results showed a total of 170 Old Colony riders from Cape Cod towns and 65 from Wareham. Applying the average survey expansion rate to the 23 extension requests implies that only about 20% of the Old Colony riders from Cape Cod or Wareham felt strongly that more direct service was needed. Some others may have been unaware that there was any possibility of getting more direct service.

Old Colony Greenbush Branch

The third-largest number of requests for a commuter rail extension was for the Greenbush Branch of the Old Colony, with six. The expanded survey results showed a total of 30 riders from towns that would be served directly by a Greenbush extension and are not served by the present Old Colony lines. Another 122 riders came from towns between the Greenbush and Plymouth/Kingston lines that would be served directly by neither, but for which a Greenbush Line might be the more convenient choice.

Only two of the requests for a Greenbush Branch came from passengers starting from Scituate and none from passengers starting from Hingham. (There were no surveys showing trips starting in Cohasset.) Because of the locations of the Greenbush extension and the other Old Colony lines relative to highways and to each other, many people driving to Boston from points in the Greenbush Line service area would not usually drive past any present Old Colony stations. Among the residents of these towns who did use present Old Colony service at the time of the survey, most apparently felt that the inconvenience of station access did not outweigh the perceived negative impacts of a Greenbush extension. The survey results do not provide a measure of the number of people who would use a Greenbush extension but find the present Old Colony lines too inconvenient to use at all.

North-South Rail Link

Only three Old Colony surveys included requests for a direct commuter rail link between South Station and North Station. The expanded survey results showed a total of only 16 Old Colony riders continuing their trips via North Side commuter rail lines. This included four who transferred to the Fitchburg Line by taking the Red Line to Porter Square. A link to North Station would not necessarily have saved much travel time for the latter group.

None of the requests for a North-South rail link were made by the same passengers who reported that they were already transferring to North Side lines. This implies that they either did not believe that such a link would greatly improve their trips or that they

were unaware that a link was even a possibility. The number of residents of the Old Colony service area who currently travel to points on the North Side lines by means other than commuter rail is undoubtedly much larger than the 16 who did use commuter rail for such trips.

Other

There were two requests for a circumferential commuter rail line to connect all of the South Side and North Side commuter rail lines. One of these suggested that the alignment of either Route 128 or I-495 be followed. Neither of the suggestions was from a passenger making a trip that would have been improved by such a route.

The circumferential transit alternatives studied to date have assumed an alignment much closer to downtown Boston than Route 128, and have not considered commuter rail as one of the modes for such a service. Neither Route 128 nor I-495 has sufficient right-of-way width or level enough grades to accommodate a commuter rail line, so at best circumferential bus service could be operated along these routes. All of the existing commuter rail lines except for the Fairmount Line cross Route 128 at some point, but most do not have stations at the crossings. Many of the most heavily patronized North Side lines are closer to Boston than Route 128, so traveling either between North Side and South Side lines or between pairs of North Side lines would involve very indirect routings. Good coordination of the schedule of a circumferential train with those of all the intersecting lines would also be very difficult if not impossible.

A circumferential route along I-495 would be even less convenient than a line along Route 128, because I-495 is even further from Boston. The Rockport, Newburyport, Needham, Stoughton, Fairmount, and Plymouth lines all end short of I-495. Only the Middleborough/Lakeville and Fitchburg Lines have existing stations where direct transfers from commuter rail to an I-495 circumferential service could be made without requiring the latter to make long side diversions.

Only four surveys contained comments in support of other commuter rail extensions. One of these favored the Newburyport extension, which was under construction when the survey was conducted and opened a few weeks later. the survey did not show any passengers with destinations that would be served by the Newburyport extension.

One survey favored an extension of the Haverhill/Reading Line to Plaistow or Dover, New Hampshire. An extension as far as Plaistow was examined as part of the 1994 update to the MBTA's Program for Mass Transportation. That analysis found that a Plaistow extension would attract few new riders and would have small air quality benefits. It would also have relatively high capital and operating costs. The PMT did not include an analysis of an extension to Dover, which is 34 rail miles beyond Haverhill compared to only five miles to Plaistow.

An extension to either Plaistow or Dover could be pursued only if some funding were contributed by the state of New Hampshire. The Amtrak intercity passenger service

from Portland, Maine to Boston which is expected to begin late in the year 2000 will use the rail line that passes through Plaistow and Dover, and will likely include one round trip with arrival and departure times suitable for Boston work travel. A station at Dover is planned, but a Plaistow station is not. The survey results did not show any Old Colony riders with destinations anywhere in New Hampshire.
Two other surveys contained vague requests for commuter rail lines to be extended or to serve more destinations.

Feeder Service Connections

The ninth-largest group of comments (55) on the Old Colony surveys pertained to feeder services at the ends of the Old Colony portions of trips. Of these, about two thirds were about connections at the inner end and the rest about connections at the outer end.

Connections at Inner Trip End

Connections to Back Bay

The largest sub-group of feeder service comments (23) involved connections to Back Bay Station. The two Old Colony lines and the Fairmount Line are the only South Side commuter rail routes that do not run directly through Back Bay. Old Colony and Fairmount passengers going to Back Bay can either transfer at South Station to outbound trains on one of the lines going there directly or use a combination of the Red Line and the Orange Line. The departure times of trains on the other South Side Lines are based on the needs of those lines and are not intentionally coordinated with arrival times of Old Colony trains. As a result, wait times at South Station for transfer passengers vary widely among Old Colony trips. The survey results showed 299 Old Colony riders continuing to Back Bay Station on other commuter rail lines and another 30 continuing there via the Red Line/Orange Line combination. As discussed in more detail in chapter 9, based on the patterns on other South Side lines an estimated 700 to 1,000 more inbound riders a day would have used Old Colony trains if they had served Back Bay directly,

Of the 23 comments on service to Back Bay, seven requested better connections without elaboration, five asked for additional peak service, seven asked for extension of Old Colony trains directly to Back Bay, including five that specified that this should be with no additional fare, and four suggested a shuttle service between South Station and Back Bay. On the lines that currently serve Back Bay, inbound trains stop there five minutes before arriving at South Station. Because of the direction from which the Old Colony lines approach Boston, if trains on these lines were to run to Back Bay they would either have to reverse direction after arriving at South Station and run outbound on one of the other lines or bypass South Station via the connecting track across Fort Point Channel. The latter alternative would inconvenience the much larger number of riders with destinations closest to South Station even if the trains returned there after going to Back Bay.

Allowing for time to unload passengers and to do mandatory brake tests, a train continuing to Back Bay would have a minimum dwell time of at least 10 minutes at South Station, putting arrival at Back Bay at least 15 minutes after arrival at South Station. This contrasts with arrival five minutes earlier than at South Station on the lines that now serve Back Bay. When the survey was conducted, the intervals between arrivals of Old Colony trains and outbound departures of other trains to Back Bay ranged from 3 to 21 minutes. Therefore, some passengers would have saved time with direct Old Colony service to Back Bay but many would not have.

After arriving at Back Bay, an Old Colony train could either reverse direction again and return to South Station or continue outbound on another line. At present, train sets used on the Old Colony lines are used exclusively on those lines. The reason for this is that all Old Colony platforms have high-level platforms and the coaches all have electrically operated doors that can be opened remotely from one location. Most of the stations on the other South Side lines have low-level platforms, and the doors on the coaches used on those lines must be opened manually. Through-routing of Old Colony trains with other South Side lines would require an increase in the number of coaches equipped for electric door operation since the Old Colony sets could not cover all of their present assignments in addition to the segments on other routes.

An Old Colony train reversing at Back Bay and returning to South Station would make its second arrival there a minimum of about 30 minutes after its initial arrival. It would be able to make another outbound departure about 10 minutes after that, or 40 minutes from its first arrival. At present, of 10 Old Colony trains scheduled to arrive in South Station before 9:30 a.m., seven rotate to outbound trips and three proceed to layover yards. Among the seven turning to outbound trips, only three are scheduled to be in South Station for at least 40 minutes. Two others would need to have their outbound departures delayed by four to six minutes to provide the 40 minutes needed, but this would cause disruption of meeting times with inbound trains at passing sections. Two of the trains going to yards go to the Readville yard via the Fairmount line and the third goes to the Southampton Street yard. All three could go to Readville via Back Bay. Another constraint on continuing Old Colony trains to Back Bay with no interlining would be availability of track capacity at the times needed. Further analysis would be needed to determine how many of the Old Colony trains could be extended to Back Bay without interfering with other service.

Shuttle trains have been operated between South Station and Back Bay in the past when construction work prevented some trains that would normally have run through Back Bay from doing so. These trains were able to make use of track capacity that was available because of the suspension of the through service. Shuttle trains would still require Old Colony passengers to transfer at South Station as they must now, but departures could theoretically be coordinated to reduce waiting times at South Station. Because of the separation of arrival times on the two Old Colony branches, shuttle connections convenient for passengers from one branch would not be convenient for passengers from the other branch. Shuttles would also result in less efficient equipment utilization than through-routing would.

Connections to Ruggles

After comments about connections to Back Bay, the next-largest number of comments about connections in Boston (6) pertained to connections to Ruggles Station. That station is served directly by the Needham, Franklin, and Attleborough/Stoughton lines, but only four outbound trains in the A.M. peak and no inbound trains in the P.M. peak currently stop there. Most Old Colony riders going to Ruggles would have to use the Red/Line Orange Line combination to minimize travel times. The survey results showed a total of 17 Old Colony riders transferring to other commuter rail trains to Ruggles. These were all from Plymouth/Kingston trains, which made much closer connections with trips to Ruggles than Middleborough/Lakeville trains did. Another 21 Old Colony riders went to Ruggles via the Red and Orange lines, with some from each branch doing so.

The scheduled running time from Back Bay to Ruggles is four minutes, so an Old Colony train continuing from South Station to Ruggles would arrive there at least 19 minutes after arriving at South Station instead of nine minutes before, as inbound trains now serving Ruggles do. An Old Colony train continuing from South Station to Ruggles, reversing there and returning to South Station would need to have a minimum of about 48 minutes between initial South Station arrival and next outbound Old Colony departure. Three of the Old Colony trains that turn to outbound trips in the A.M. peak have over 48 minutes of layover time at South Station, but too much time would need to be added to departure times of the other trains that make outbound trips. Old Colony trains routed to Readville yard via Back Bay could make stops at Ruggles.

Overall, Ruggles is a much less popular destination than Back Bay. In the 1993 survey, it accounted for only 3% of the combined alightings at South Station, Back Bay and Ruggles on lines that served Ruggles directly. Therefore, even if all Old Colony trains were able to serve Ruggles directly, no more than about 150 additional inbound daily riders could be expected to be attracted. Because of the roundabout routing, the number would likely be much smaller than this.

Other Connections in Boston

The remaining comments about connections in Boston included two complaints about Red Line connections, one about Green Line connections, and one about unspecified connections. One survey had a request for better connections from Old Colony trains to the Longwood Medical Area. A few of the passengers who went to Ruggles either via other commuter rail lines or via the Orange Line had final destinations in the Medical Area. The expanded survey results showed a total of 107 Old Colony riders going to surface Green Line stops serving the Medical Area, and most of them had no comments about the connections. It is not obvious how connections to the Medical Area could be improved. When the planned JFK/UMass station on the Old Colony lines opens, passengers will have the option of transferring there to MBTA bus Route 8, which goes to the Medical Area. The headways and running times on that route would provide little overall reduction in travel time, however.

One passenger asked for better coordination of the schedule of bus Route CT3 with that of the Red Line. This passenger accessed Route CT3 to go to the Boston Medical Center by transferring to the Red Line at Quincy Center and riding to Andrew Station. The only other survey returns from riders using the CT3 were three from passengers who transferred to the Red Line at South Station and rode back to Andrew. These responses were expanded to represent a total of nine riders. Given this small number, a schedule change primarily for their benefit could not be justified. The following analysis is useful as an example of the difficulty of coordinating commuter rail and local bus service, however.

During A.M. peak hours, Route CT3 runs on a 20-minute headway. Red Line trains from Braintree run on headways ranging from six to 11 minutes. Therefore, there are two to four Red Line trains for every CT3 bus. Since the CT3 headway is not an even multiple of the Red Line headway, the interval between the departure of a CT3 bus and the most recent preceding Red Line train arrival must vary among CT3 trips even when the trains and buses are both on time. At Braintree and Quincy Center, the next Red Line trains departing after Old Colony train arrivals are not always those with the closest scheduled connections to CT3 buses at Andrew. To arrive at their final destinations in time for work or school schedules or appointments, some passengers would have to use trips other than those with the minimum transfer delays.

Old Colony train speeds north of Quincy Center are faster than Red Line speeds, and there is more frequent Red Line service to Andrew from South Station than from Braintree and Quincy. As a result, passengers from most Old Colony trains would reach Andrew Station only a few minutes earlier by transferring at Quincy or Braintree than by transferring at South Station. In most cases, a passenger going to Route CT3 would connect with the same trip regardless of which transfer point between Old Colony and Red Line trains was used. This helps to explain why the greatest number of survey respondents going to the CT3 transferred to the Red Line at South Station in spite of the longer trip length.

Connections at Outer Trip End

A total of 20 comments about feeder service connections at outer trip ends appeared on the surveys. The greatest number of these (13) asked for better coordination of local bus schedules with train schedules. As discussed in chapter 3, most of the bus routes connecting with Old Colony stations pre-date Old Colony service and are operated primarily for purposes other than providing train connections. Most of these routes operate on uniform headways, but Old Colony trains run on irregular headways. Therefore, changing the bus schedules to provide closer connections with trains would be likely to make service less convenient for many if not most of the bus riders not going to trains.

Three surveys requested that bus service be operated between the Kingston and Plymouth stations to compensate for the fact that trains serve one station or the other but not both. One rider complained of the high cost of using taxis for this purpose.

There is a Greater Attleborough Taunton Regional Transit Authority (GATRA) bus route that stops at both the Kingston Station and the Plymouth Station. This route was started shortly after Old Colony service and was intended partly as a feeder, but it is also supposed to serve other purposes. Like most of the pre-existing routes, it runs on a uniform headway that is not well coordinated with most of the train times. Since this bus route did not have a well-established clientele, it may be more feasible to revise its schedule than to change the schedules of older bus routes.

The only other suggestion for feeder service to a specific station was one to have shuttle buses to Middleborough from points within the town. One survey requested operation of more bus connections to Plymouth/Kingston Line trains in the P.M. peak. There was one general suggestion to provide more taxi or bus service to Old Colony stations to alleviate parking congestion.

In the past, the MBTA has had little success with feeder service to commuter rail. Even with good schedule coordination, buses have limited attractiveness for commuter rail access, because they cannot offer direct pick-up at every origin, and they often follow less direct paths then individual passengers would use. They also have slower average speeds than driving because of making stops. To guarantee connections with trains, feeder bus schedules must include further allowances for delays. When no delays are encountered, passengers arrive at their boarding stations much further ahead of train departure than they would have to if making their own access travel arrangements. As a result of these drawbacks, feeder buses are most likely to be used by people with no other alternatives.

As discussed in chapter 6, the great majority of Old Colony passengers had drivers licenses and also had autos available for the trips they were making when surveyed. Those without autos available nevertheless found ways to get to stations. The most commonly used of these were being dropped off (43%) and walking (40%). If the surveyed passengers are representative of the general population in the Old Colony service area, the number of people who do not already use the trains but would do so if feeder service were available is small.

No information is readily available on the supply of taxi service at Old Colony stations. Taxis are operated by private companies or individuals. Other than designating space for taxi stands at stations, the MBTA has little or no control over the supply of taxi service.

The expanded survey results showed a total of 23 riders using taxi access. Of these, only three had autos available on the survey day. The boarding stations of these riders were Middleborough/Lakeville, Bridgewater, Brockton, Montello, Holbrook/ Randolph, Plymouth, and Kingston. The greatest number at any individual station was five. Some of those who reported using taxis happened to have done so on the survey day for reasons such as that their automobiles were being repaired, but would not have used taxis on most days. Only seven of the taxi users were from households with no autos, and one of these was making a non-repetitive trip. The taxi rate structure is such

that the taxi fare to boarding stations from many origins would exceed the commuter rail fare to Boston. Based on these findings, increasing the availability of taxis at Old Colony stations would not attract a large number of new riders.

Train Operations

The tenth-largest group of comments (25) pertained to train operations. The number of such comments was equal to less than 1% of the returns on each of the Old Colony branches. In contrast, 3% of the surveys in 1993 had comments on operations. This difference was partly because most Old Colony riders were newer to commuter rail than the 1993 riders and had not had as much time to think of suggestions for operating improvements.

Most of the specific comments on train operations by Old Colony riders appeared on only one survey form each. The largest number of appearances of any one comment was three complaints of trains leaving ahead of schedule. All three comments were made by passengers on one train, which typically carried about 380 riders a day. Therefore, there was not a widespread perception that even this train was leaving ahead of schedule. It is more likely that passengers had slow watches than that trains were actually departing early. (It has been observed that in a group of people with watches showing several different times, each will claim to have the correct time.)

The only other comments on train operations repeated on more than one survey were two each complaining of too many signal problems and of trains stopping between stations. Similar to these were one complaint each of delays at Holbrook, South Weymouth, and South Station. It is unclear whether the passengers who complained of signal problems had been told that this was the cause of delays or had concluded that on their own. The Old Colony lines mostly have single track with a limited number of two-track passing sections. This makes it impossible to avoid built-in delays in the schedules of some trains. Passengers who are unaware of this constraint may assume that when trains necessarily slow or stop between stations that it could be avoided. Delays at South Station are most likely to be caused by the limited number of platforms there.

One passenger who did have some familiarity with the single-track problem suggested that peak-direction trains always be given priority over off-peak trains. This is done to the extent possible in scheduling Old Colony trains, but again because of the locations of the passing sections, it is impossible to avoid having any delays to peak trains when meeting trains traveling in the opposite direction.

Four passengers suggested changes that would have delayed trains more. One of these asked that trains slow down at grade crossings, and another that schedules be lengthened so that trains would not have to run fast to make up time when late. There was one request that trains be held if passengers are still approaching, and one that trains be held after delays in subway service.

Some conductors hold trains for approaching passengers, but doing so delays all of the other passengers and can cause problems in meeting other trains. Holding trains after subway delays would cause similar problems. Commuter rail conductors and train dispatchers have no way of monitoring subway operations for delays. Even if they did, they would have no way of knowing how many of their passengers had been affected by these delays and how long it would be necessary to wait for them. As discussed in chapter 9, the most common means of egress for passengers alighting from Old Colony trains at South Station was walking. Transfers to the Red Line accounted for 31% of the riders on the Middleborough/Lakeville Line and for 25% on the Plymouth/Kingston Line. Since only inbound trains were surveyed, no information on access modes to outbound trains was obtained, but all-day Red Line boarding and alighting counts at South Station suggest that the proportions would be similar to these. Most passengers using Red Line access to South Station allow for typical variation in travel time.

There was one complaint of trains not stopping long enough for passengers to get off. Standard operating procedure on commuter rail lines calls for the conductor to step off a train at every stop and to signal the engineer when boardings and alightings are complete and the train can proceed. With the electric doors used on the Old Colony trains all passengers should be able to exit from the same cars they have been riding in and should have ample time to reach exit doors. Passengers with mobility problems that may delay them in reaching exits should notify the conductors when their tickets are collected.

There were three complaints about the stopping points of trains at platforms. One said that trains miss the platforms, one said that they have inconsistent stopping points, and one said that trains stop too far from the parking area at night or in the evening. The platforms at all Old Colony stations are longer than the maximum lengths of the trains operated on these lines, so there is no need for a train to stop with any doors off the platform. Some inconsistency of stopping points could result from differences in train lengths, with the extreme ends of the platforms not being spanned by some trains. Passengers should always be able to find open doors within one or two carlengths of each end of a platform, however.

At night when ridership is low only one or two cars on a train may be open for passengers. Usually these would be cars close to the inner platform ends at South Station. The outlying stations do not have uniform layouts, so the closest point to the parking lots varies among platforms. In some cases stopping cars at the South Station end of a train close to the parking lot exit would require stopping the front of the train beyond the end of the platform. This would be hazardous for passengers who have gotten into cars that are supposed to be closed and are planning to alight directly from them.

Miscellaneous Comments

The ten comment categories discussed above accounted for over 99% of all the written comments and suggestions on the survey forms. Another 22 comments did not fall

readily into any of the previous categories. Of these, 17 were favorable comments and five were complaints or criticisms.

Of the positive comments, three stated that the train was faster than driving and three said the respondent used the train even though it cost more than other alternatives. Two comments said that the train was better than the bus and two said it was better than the Red Line. Six other comments appeared on only one survey each. None of the five negative comments appeared on more than one survey each, and three of them referred to problems specific to the respondent.

Summary of Written Comments and Suggestions on Old Colony Surveys

Comment Category	Midd. Line	King. Line	Total
Service and Schedules			
Requests for More Service			
PM peak	70	146	216
AM peak	35	128	163
Evening	36	95	131
More frequent service overall	55	42	97
Late-night	21	39	60
Weekend	22	23	45
Midday	25	16	41
Early morning/earlier start	10	31	41
Holiday	2	0	2
Inbound PM peak	0	1	1
Outbound in morning	0	1	1
Subtotal Requests for More Service	**276**	**522**	**798**
Requests for Changes in Number of Stations Served			
Requests for Express Service from Station Specified			
Kingston	0	53	53
Halifax	0	8	8
Middleborough/Lakeville	4	0	4
In general	7	0	7
Bridgewater	2	1	3
Hanson	0	3	3
Brockton	3	0	3
Holbrook	2	0	2
South Weymouth	0	1	1
Subtotal	18	66	84
Requests for More Trains to Stop at Station Specified			
Quincy Center	1	33	34
Plymouth (in general)	1	11	12
Plymouth (in peak hours)	0	7	7
Kingston	0	5	5
Braintree	4	0	4
Abington	0	1	1
Mansfield (Attleborough Line)	0	1	1
Subtotal	6	58	64
Requests to Reduce Service at Station Specified			
Multiple stations in Brockton	9	0	9
Quincy Center	2	3	5
Braintree	2	2	4
South Weymouth	0	1	1
Plymouth	0	1	1
In general	1	0	1
Subtotal	14	7	21
Requests for Additional Old Colony Stations			
At JFK/UMass	4	0	4
At North Quincy	0	2	2
Subtotal	4	2	6
Subtotal Requests for Changes in Number of Stations Served	**42**	**133**	**175**

Summary of Written Comments and Suggestions on Old Colony Surveys

Comment Category	Midd. Line	King. Line	Total
Other Comments on Service and Schedules			
Trains are late too often	19	25	44
Different train times would be more convenient	27	8	35
Overall running times are too long/trains too slow	7	23	30
Trains run too slow approaching terminals	14	0	14
Train schedule does not reflect actual service	1	1	2
Like current schedule	2	1	3
Old schedule better	0	1	1
Would use a different station if times were good	0	1	1
Train leaves too early for sports events/theater	1	0	1
Need better connections with Framingham/Worcester Line	1	0	1
Subtotal Other Comments on Service and Schedules	**72**	**60**	**132**
Total Service and Schedules	**390**	**715**	**1,105**
Train Equipment/Facilities			
Complaints Related to Seating			
Trains should have more cars/more double deckers	106	187	293
Not enough seats available	81	146	227
Shouldn't let one passenger take up several seats	12	9	21
Seats are too narrow/uncomfortable	5	11	16
More cars on train should be open for passengers	1	2	3
Provide more seats for passengers with disabilities	1	0	1
Subtotal-Complaints Related to Seating	**206**	**355**	**561**
Complaints About Temperature Control			
Too Hot	9	5	14
Too Cold	6	6	12
Temperature control broken	2	4	6
Subtotal Complaints About Temperature Control	**17**	**15**	**32**
Other Train Equipment/Facilities Issues			
Cars should be cleaned more often	5	6	11
Trains are clean	0	3	3
Need trash receptacles on trains	1	1	2
More doors should be open at stations	3	4	7
Should sell newspapers, coffee, etc. on board trains	1	6	7
Very smooth/comfortable ride	1	3	4
Complaint about rough riding of cars	2	1	3
Insufficient serviceable lavatories on train	3	0	3
Damaged cars don't get repaired	3	0	3
Provide a bar car	0	2	2
Aisles too narrow	0	2	2
PA doesn't work	2	0	2
Seats are comfortable	1	1	2
Have separate car for parents with screaming children	2	0	2
Don't allow crying babies on train	1	0	1
Lights too bright	1	0	1
Install window shades	1	0	1
Would like music	0	1	1
No soap in restroom	0	1	1
Trains are too noisy	0	1	1
Flat wheels too noisy	0	1	1

Summary of Written Comments and Suggestions on Old Colony Surveys

Comment Category	Midd. Line	King. Line	Total
Other Train Equipment/Facilities Issues (continued)			
Didn't like bi-level cars	0	1	1
Ban mobile phones	0	1	1
Have separate car for reading	1	0	1
Reserve an empty car for S. Weymouth	0	1	1
Install reclining seats	0	1	1
Provide bike storage on trains	0	1	1
Subtotal Other Train Equipment/Facilities Issues	28	38	66
Total Train Equipment/Facilities	251	408	659
Station Facilities			
Parking Facilities			
Insufficient Parking Available			
Middleborough/Lakeville	70	2	72
Halifax	0	29	29
Whitman	4	20	24
In general	10	9	19
Abington	0	8	8
Braintree	1	3	4
Kingston	0	3	3
Hanson	0	2	2
Bridgewater	2	0	2
Brockton	2	0	2
Holbrook/Randolph	2	0	2
Randolph lot at Holbrook/Randolph	1	0	1
Montello	1	0	1
South Weymouth	0	1	1
Subtotal	93	77	170
Other Comments on Parking Shortage			
Lack of parking prevents use of nearest station	1	7	8
Tar the grass for more parking	1	0	1
Reserve spaces for local residents at Braintree	1	0	1
Overflow lot for Middleborough? If so, advertise	1	0	1
Subtotal	4	7	11
Complaints, Comments and Suggestions About Parking Fees			
Parking should be free	5	11	16
Payment system is confusing	2	3	5
Allow free overnight parking at stations	3	1	4
Monthly sticker/pass for parking	3	1	4
Parking fees are too high	1	2	3
Parking fee should be included in fare	1	1	2
Parking fee machine is broken	2	0	2
No surcharge for parking when lot full	1	0	1
Improper parking fines	1	0	1
Use parking fees for lot operation only	0	1	1
Need change machine for parking	0	1	1
Make sure everyone who park pays	1	0	1
Don't raise parking fees	1	0	1
Get attendant	0	1	1
Subtotal	21	22	43

Summary of Written Comments and Suggestions on Old Colony Surveys

Comment Category	Midd. Line	King. Line	Total
Unsafe Parking/Traffic Flow			
Unspecified location	1	9	10
Kingston	0	5	5
Whitman	0	1	1
Abington	0	1	1
Hanson	0	1	1
Bridgewater	2	0	2
Middleborough/Lakeville	5	0	5
Brockton Commercial St. access	3	0	3
Tow cars not parked in marked spaces (Middleborough)	1	0	1
Install speed bumps	0	1	1
Subtotal	12	18	30
Inadequate Protection from Vandalism and Theft			
Unspecified location	2	5	7
Halifax	0	5	5
Abington	0	4	4
Kingston	0	2	2
Hanson	0	1	1
Subtotal	2	17	19
Complaints About Snow Removal from Parking Lots			
Inadequate at South Weymouth	0	4	4
Inadequate at Halifax	0	1	1
Inadequate at unspecified lots and walks	0	1	1
Can't find space number with snow on ground	0	1	1
Subtotal	0	7	7
Other Comments/Complaints/Suggestions			
Parking surface/pavement needs improvement	0	2	2
Parking spaces inadequately delineated	0	2	2
Need better bicycle parking facilities	1	1	2
Sand is bad at Middleborough lot	1	0	1
Subtotal	2	5	7
Subtotal - Parking Facilities	**134**	**153**	**287**
Waiting Areas and Platforms			
Inadequate shelter			
Middleborough	15	0	15
Holbrook/Randolph	2	0	2
Kingston	0	2	2
Braintree	0	1	1
Bridgewater	1	0	1
Unspecified	0	1	1
Subtotal	18	4	22
Inadequate security			
Halifax	1	7	8
Abington	2	2	4
Bridgewater	3	0	3
Unspecified	0	3	3
Montello	1	1	2
Brockton	1	0	1
Subtotal	8	13	21

Summary of Written Comments and Suggestions on Old Colony Surveys

Comment Category	Midd. Line	King. Line	Total
Waiting Areas and Platforms (continued)			
Dirty platforms/waiting areas			
South Station	2	2	4
Brockton	2	0	2
Braintree	0	1	1
Unspecified	0	1	1
Subtotal	4	4	8
Should Enforce No-Smoking Regulations in Stations	3	5	8
Unsafe boarding conditions at stations			
South Station (slippery)	1	3	4
Middleborough (slippery)	1	0	1
South Weymouth	0	1	1
Subtotal	2	4	6
Complaints About Public Telephones			
Need more public telephones	2	2	4
Fix Whitman pay phones	0	1	1
Hanson phone always broken	0	1	1
Subtotal	2	4	6
Inadequate Lighting of Platforms/Waiting Areas			
Middleborough/Lakeville	2	0	2
Brockton	1	0	1
Campello	1	0	1
Kingston (poor light timing)	0	1	1
Subtotal	4	1	5
Miscellaneous Complaints About South Station			
Equipment in the way sometimes	1	0	1
Station is crowded	0	1	1
Track locations too far from waiting room	0	1	1
Heavy traffic on the street outside	0	1	1
Too much noise	1	0	1
Subtotal	2	3	5
Complaints About Locomotive Exhaust Ventilation			
Bridgewater Station	3	0	3
Back Bay Station	0	1	1
Subtotal	3	1	4
Other Comments/Complaints/Suggestions			
Sell coffee at stations	0	3	3
Stations should be in center of town	2	0	2
Inadequate snow removal at Halifax	1	1	2
Have pedestrian overpass over tracks	2	0	2
Have newspapers, recycling bins at stations	0	1	1
Have bathrooms at stations	1	0	1
Remove graffiti at South Weymouth	0	1	1
Problem with bees at Montello	1	0	1
Poor landscaping/maintenance Middleborough	1	0	1
Station facilities are safe	1	0	1
Very clean, like in Europe	1	0	1
Subtotal	10	6	16
Subtotal-Waiting areas and platforms	**56**	**45**	**101**
Total Station Facilities	**190**	**198**	**388**

Summary of Written Comments and Suggestions on Old Colony Surveys

Comment Category	Midd. Line	King. Line	Total
General Praise or Complaints for Commuter Rail			
Praise	82	78	160
Complaints	3	0	3
Total General Praise or Complaints	**85**	**78**	**163**
Information/Announcements			
Complaints and Comments About Audible Announcements			
Conductors don't announce stops	5	16	21
PA announcements are unintelligible on trains	6	11	17
PA announcements are unintelligible at stations	2	1	3
Announce departure from South Station on M/L	1	0	1
Pre-record stop announcements	0	1	1
Subtotal - Complaints and Comments About Audible Announcements	**14**	**29**	**43**
Complaints About Train Status/Delay Information			
No explanation of delays	13	6	19
Want more train announcements, delay info at stations	5	3	8
Subtotal - Complaints About Train Status/Delay Information	**18**	**9**	**27**
Comments/Suggestions About Signage and Monitors			
Need better signage/monitors to locate trains in terminals	8	2	10
Earlier track notice for departure out of South Station	3	0	3
Post train destination at end of train nearest station	1	1	2
Put commuter rail departure monitors in rapid transit station	1	1	2
Inconsistent posting on monitors at South Station	0	1	1
Put TV screens back at South Station	1	0	1
Track changes should be announced at South Station	0	1	1
Use LED signs at station to announce trains	0	1	1
Subtotal - Comments/Suggestions About Signage and Monitors	**14**	**7**	**21**
Comments/Suggestions About Printed Schedules			
Timetables not available at boarding station	2	4	6
Timetables not available at boarding station/Brid	1	0	1
Timetables not available at boarding station/Midd	1	0	1
Current timetables aren't posted at S. Weymouth station	0	2	2
Put schedules at all stations	1	1	2
Schedules should be easier to read	1	3	4
Insufficient advance notice of schedule changes provided	0	2	2
Display schedule on trains	0	1	1
Inaccurate information from Brockton ticket seller	1	0	1
Subtotal - Comments/Suggestions About Printed Schedules	**7**	**13**	**20**
Complaints About Telephone/Internet Information System			
Recording is annoying	3	1	4
Desired information not there/out of date in phone info.	0	2	2
Complaints not handled	0	1	1
Want to talk to real person on tele/info system - not machine	0	1	1
Internet bus schedule confusing	1	0	1
Subtotal - Complaints About Telephone/Internet Information System	**4**	**5**	**9**

Summary of Written Comments and Suggestions on Old Colony Surveys

Comment Category	Midd. Line	King. Line	Total
Comments/Suggestions About the Survey			
Doesn't like personal questions in survey	0	1	1
Leave blank surveys on seats next time	1	0	1
Quit bothering us with surveys	0	1	1
Staple survey at open end	0	1	1
Subtotal - Comments/Suggestions About the Survey	1	3	4
Other Information/Announcements Issues			
Increase advertising of commuter rail	1	0	1
Have a suggestion box	1	0	1
Want info on public trans. at local stop	1	0	1
Subtotal - Other Information/Announcements Issues	3	0	3
Total Information/Announcements	61	66	127
Fare/Ticketing Issues (Excluding Personnel)			
Complaints About Fare Levels			
Fares are too high	5	10	15
Surcharge unfair, not properly posted/adequately warned	6	4	10
Should have students fares for college students	5	2	7
Single or 12-ride fares should include subway transfer	1	4	5
Discount pass for standees	0	4	4
Passholders should get a larger discount	1	2	3
Free train ride if late	1	2	3
Offer half-price monthly passes for seniors/disabilities	3	0	3
Hingham boat should honor Zone 8 pass	0	1	1
Discount fares for state transportation worker	0	1	1
Have free passenger for passes on weekends	1	0	1
Should offer multiple-ride interzone tickets	1	0	1
Subtotal - Complaints about Fare Levels	24	30	54
Suggestions for Improving Ticket Sales Procedures			
Ticket outlets should accept checks and credit cards	3	4	7
Sell passes at all stations	1	3	4
Suburban ticket outlets are inconveniently located	0	2	2
Have automatic ticket machine	0	2	2
Have automatic ticket/passes service at South Station	0	1	1
Sell tickets on the internet	0	1	1
Sell T pass on board train	0	1	1
Keychain passes	0	1	1
More ticket outlets	0	1	1
Have tickets available in downtown Boston	1	0	1
Stations lack directions how to find ticket outlets	1	0	1
Tickets too small	1	0	1
Subtotal - Suggestions for Improving Ticket Sales Procedures	7	16	23
Complaints About Lengths of Ticket Lines			
Ticket lines too long	3	9	12
Need more ticket sellers/shorter lines at South Station	1	5	6
Failure to notify people in line when tickets not available	0	1	1
Separate lines for coffee and passes/tickets	0	1	1
Subtotal - Complaints About Lengths of Ticket Lines	4	16	20

Summary of Written Comments and Suggestions on Old Colony Surveys

Comment Category	Midd. Line	King. Line	Total
Passes, Certain Tickets Unavailable at Outlying Points			
Whitman	0	4	4
Plymouth	0	4	4
Halifax	0	3	3
Brockton	2	0	2
Bridgewater	2	0	2
Ticket outlet not open enough hours/Bridgewater	1	0	1
Hanson	0	1	1
Subtotal - Passes, Certain Tickets Unavailable at Outlying Points	**5**	**12**	**17**
Total Fare/Ticketing Issues (Excluding Personnel)	**40**	**74**	**114**
Personnel			
Commendations for On-Board Personnel			
General commendations	6	38	44
Commendations for specific individuals	5	5	10
Subtotal - Commendations for On-Board Personnel	**11**	**43**	**54**
Complaints About On-Board Personnel			
Conductors don't check tickets for correct zone	4	3	7
Lack of courtesy or skill in dealing with the public	0	6	6
Complaints about specific individuals	4	1	5
Overall complaints	1	3	4
Most are great, but a few are terrible	1	1	2
Don't yell at passengers who have to pay surcharge	1	0	1
Passenger aboard wrong train wasn't re-directed	0	1	1
Subtotal - Complaints About On-Board Personnel	**11**	**15**	**26**
Complaints About Off-Train Personnel			
Suburban ticket outlets don't know fare/pass price	1	1	2
General complaint about off-train ticket agents	0	2	2
Subtotal - Complaints About Off-Train Personnel	**1**	**3**	**4**
Subtotal - Personnel	**23**	**61**	**84**
Votes for Commuter Rail or Commuter Boat Extensions			
Taunton/New Bedford/Fall River	18	9	27
Wareham/Cape Cod	20	3	23
Greenbush	0	6	6
North Side - South Side Rail Link	1	2	3
Inter-suburban line requested	2	0	2
Newburyport	1	0	1
Plaistow/Dover	1	0	1
Extend lines	1	0	1
More destinations	1	0	1
Have commuter boat Boston to New Bedford	3	0	3
Total Votes for Commuter Rail or Boat Extensions	**48**	**20**	**68**

Summary of Written Comments and Suggestions on Old Colony Surveys

Comment Category	Midd. Line	King. Line	Total
Feeder Service Connections			
Connections at Inner Trip End			
Connections to Back Bay			
Want better connections to Back Bay	7	0	7
More peak service South Station to Back Bay	0	5	5
Extend Old Colony trains to Back Bay without fare	3	2	5
Shuttle service South Station to Back Bay	2	2	4
Continue service to Back Bay	2	0	2
Subtotal	14	9	23
Want more peak service South Station to Ruggles	0	6	6
Other Comments/Complaints/Suggestions			
Red Line undependable/connections poor	0	2	2
Green Line is no good	0	1	1
Bad connections (unspecified)	1	0	1
Want better connections to CT3 bus	1	0	1
Want better connections to Longwood area	1	0	1
Subtotal	3	3	6
Subtotal - Connections at Inner Trip End	**17**	**18**	**35**
Connections at Outer Trip End			
Need to coordinate local bus and train schedules	1	12	13
Want bus to Kingston from Plymouth	0	3	3
Want shuttle to Middleborough Sta from local area	1	0	1
Want bus service at South Shore stations in p.m.	0	1	1
Taxi from Kingston to Plymouth is too expensive	0	1	1
Want more taxis or buses at stations	0	1	1
Subtotal - Connections at Outer Trip End	**2**	**18**	**20**
Total Feeder Service Connections	**19**	**36**	**55**
Train Operations			
Trains leave ahead of schedule	3	0	3
Too many signal problems	2	0	2
Don't stop on tracks between stations	2	0	2
Don't slow down going into Holbrook	1	0	1
Delays at South Station	0	1	1
Delay at South Weymouth not good	0	1	1
Peak direction trains should have right of way	0	1	1
Trains should slow down at grade crossing	0	1	1
Don't set schedules that force train speeding to make up for delays	0	1	1
Should hold trains for approaching passengers	1	0	1
Hold commuter trains after subway delays	0	1	1
Trains don't stop long enough for passengers to get off	0	1	1
Trains miss platforms	0	1	1
Stopping points on platforms are inconsistent	0	1	1
Evening/night trains stop at far end of platform too far from parking	0	1	1

Summary of Written Comments and Suggestions on Old Colony Surveys

Comment Category	Midd. Line	King. Line	Total
Train Operations (continued)			
Glad train skips most stops in area served by Red Line	0	1	1
Train whistle too loud	0	1	1
Use train whistle more	1	0	1
Want electric trains	0	1	1
Trouble with crossing gates in Abington	0	1	1
Whistle for one minute before leaving Kingston Station	0	1	1
Total Train Operations	**10**	**15**	**25**
Miscellaneous Comments			
Miscellaneous Favorable Comments			
Trains faster than driving	1	2	3
Use train even though it costs more	0	3	3
Better than the bus	0	2	2
Better than the Red Line	0	2	2
Have greatly increased my travel to Boston because of train	0	1	1
Moved to area for train	1	0	1
Good value for the fare	0	1	1
Train enables elderly who can't drive much to travel	0	1	1
Likes reduced traffic due to trains	0	1	1
Likes trains because it is very quiet	1	0	1
Train costs same as or less than driving	0	1	1
Subtotal Miscellaneous Favorable Comments	**3**	**14**	**17**
Miscellaneous Complaints			
Broke foot on train last fall, legal dept. has not responded	1	0	1
Took too long to start service	1	0	1
Lost a package on train that was never returned	1	0	1
Concerned about children riding unattended	0	1	1
Brockton - Plymouth via South Station takes too long	0	1	1
Subtotal Miscellaneous Complaints	**3**	**2**	**5**
Total Miscellaneous Comments	**6**	**16**	**22**
Recap of Total Comments by Category			
Service and Schedules	390	715	1105
Train Equipment/Facilities	251	408	659
Station Facilities	190	198	388
General Praise or Complaints for Commuter Rail	85	78	163
Information/Announcements	61	66	127
Fare/Ticketing Issues (Excluding Personnel)	40	74	114
Personnel	23	61	84
Votes for Commuter Rail or Commuter Boat Extensions	48	20	68
Feeder Service Connections	19	36	55
Train Operations	10	15	25
Miscellaneous Comments	6	16	22
Total Comments	**1,123**	**1,687**	**2,810**
Total Surveys	**1,533**	**1,703**	**3,236**
Average Comments per survey	**0.73**	**0.99**	**0.87**

№ 4068

Old Colony Passenger Survey

This survey will help us determine how the introduction of Old Colony service has affected commuting from the South Shore and how service can be improved. Please answer as many questions as you can. After completing the survey, you may either hand it to a survey attendant, place it in a collection box at South Station or drop it in the mail (no stamp is needed). ***Your answers are confidential and you will not be put on any mailing lists.*** *THANK YOU!*

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1. Which line are you riding?

2-1 ❑ Plymouth/Kingston -2 ❑ Middleborough/Lakeville

At which station did you board this train? Office Use Only

_____ 3 [| | |]

2. Approximately what time did you board this train?

4 [:] ❑ A.M. ❑ P.M. 5 [| |]

3a. Where were you before starting this trip?

6-1 ❑ At home
-2 ❑ At school
-3 ❑ At work
-4 ❑ At a store
-5 ❑ At the doctor or other personal business
-6 ❑ At a work-related errand or meeting
-7 ❑ At a restaurant, or social or recreational activity
-8 ❑ Other _____ 7 [ ]

3b. Where is that (the place indicated in question 3a) located?

8 _____
(address or nearest street intersection or landmark)

9 _____
(city/town)

4a. How did you get to your boarding station?

10-1 ❑ Walked directly (from home, work, school, etc.)
-2 ❑ Was dropped off from a private car
-3 ❑ Drove and parked at or near station
-4 ❑ Rode as passenger in car parked at or near station
-5 ❑ Transferred from a bus/shuttle (which route? _____)
-6 ❑ Rode bicycle
-7 ❑ Taxicab 11 [| | |]
-8 ❑ Other _____ 12 [|]

4b. How long did it take to get to your boarding station?

13 _____ minute(s)

4c. How long did you wait at the station today for this train?

14 _____ minute(s)

5. How did you pay your fare for *this* train trip?

15-1 ❑ Adult cash fare
-2 ❑ Adult monthly pass (circle one):
16 Zone 1 2 3 4 5 6 7 8 Boat Interzone
-3 ❑ 10- or 12-ride ticket
-4 ❑ Senior citizen or person with disabilities reduced fare
-5 ❑ Student pass
-6 ❑ Child/student reduced cash fare
-7 ❑ Other _____ 17 [|]

6. At which station will you get off *this* train?

_____ 18 [| | |]

Continues inside ☞

Office Use Only

7a. What will you do when you leave *this* train?

19-1 ❑ Walk directly to your destination (work, school, etc.) 20 [ ]
-2 ❑ Transfer to the subway and then exit at _____ station
-3 ❑ Transfer to a bus (which route?_____) 21 [ ]
-4 ❑ Transfer to another commuter rail line (which line? _____)
-5 ❑ Transfer to a shuttle van (which one?_____) 22 [ ]
-6 ❑ Be picked up in a private car
-7 ❑ Drive or ride in car parked at or near station
-8 ❑ Other _____ 23 [ ]

7b. How long will it take to get from this train to your destination?

24 _____ minute(s)

8a. Where will you be at the end of this one-way trip (your destination)?

25-1 ❑ At home
-2 ❑ At school
-3 ❑ At work
-4 ❑ At a store
-5 ❑ At the doctor or other personal business
-6 ❑ At a work-related errand or meeting
-7 ❑ At a restaurant, or social or recreational activity
-8 ❑ Other _____ 26 [ ]

8b. Where is that located?

27 _____
(address or nearest street intersection or landmark)

28 _____
(city/town)

9. How many days per week do you ride Old Colony trains?

29-1 ❑ Less than 1 day
-2 ❑ 1 day
-3 ❑ 2 days
-4 ❑ 3 days
-5 ❑ 4 days
-6 ❑ 5 days
-7 ❑ 6 days
-8 ❑ 7 days

10. Do you ride Old Colony trains on . . . 30 [ ]

Saturdays? ❑ Yes, regularly ❑ Yes, occasionally ❑ No, not at all
Sundays? ❑ Yes, regularly ❑ Yes, occasionally ❑ No, not at all

11. How often did you make this trip before Old Colony service began?

31-1 ❑ Never
-2 ❑ Same frequency as now (see question 9)
-3 ❑ Other _____ 32 [ ]

12. If you previously made this trip, what means of transportation did you use before the start of Old Colony service? (Check all that apply. If you used more than one means, indicate in the space next to each one how many days per week you typically used that means.) 48 [ ] 49 [ ]

33 ❑ Drove alone 34_____ 35 ❑ Carpool or vanpool 36_____
37 ❑ Private-carrier bus 38_____ (which carrier?_____)
39 ❑ MBTA commuter rail from _____ station 40_____
41 ❑ MBTA bus 42_____ 43 ❑ MBTA subway 44_____ 45 ❑ MBTA ferry 46_____
47 ❑ Other _____ 50 [ ]

13. Do you continue to use any other means to make this trip? (Please follow instructions for question 12.) 66 [ ] 67 [ ]

51 ❑ Drive alone 52_____ 53 ❑ Carpool or vanpool 54_____
55 ❑ Private-carrier bus 56_____ (which carrier?_____)
57 ❑ MBTA commuter rail from _____ station 58_____
59 ❑ MBTA bus 60_____ 61 ❑ MBTA subway 62_____ 63 ❑ MBTA ferry 64_____
65 ❑ Other _____ 68 [ ]

14. What is your age?

69-1 ❑ 17 or under
-2 ❑ 18–24
-3 ❑ 25–34
-4 ❑ 35–44
-5 ❑ 45–64
-6 ❑ 65 or over

15. How many people live in your house or apartment, including yourself?

70 _____

16. Do you have a driver's license?

71-1 ❑ Yes
-2 ❑ No

17. How many vehicles (cars and trucks) are owned by your household?

72-1 ❑ None -3 ❑ 2 vehicles -5 ❑ 4 vehicles
-2 ❑ 1 vehicle -4 ❑ 3 vehicles -6 ❑ 5 or more vehicles

18. Did you have a vehicle available for this trip today?

73-1 ❑ Yes -2 ❑ No

19. What is your primary occupation?

74-1 ❑ Retail/Sales -4 ❑ Secretarial/Clerical -7 ❑ Technical/Professional
-2 ❑ Service/Trades -5 ❑ Homemaker -8 ❑ Unemployed/Retired
-3 ❑ Student -6 ❑ Other _____

20. What is your annual household income?

75-1 ❑ Under $20,000 -3 ❑ $30,000–$39,999 -5 ❑ $60,000–$79,999
-2 ❑ $20,000–$29,999 -4 ❑ $40,000–$59,999 -6 ❑ $80,000 or more

21. What is your gender?

76-1 ❑ Male -2 ❑ Female

22. What is your zip code at home? 77 _____
at work (or school)? 78 _____

23. What are your main reasons for using Old Colony rail service?

79 ❑ Convenience 83 ❑ Downtown parking cost/availability
80 ❑ Speed/travel time 84 ❑ Environmentally responsible
81 ❑ Avoid driving/traffic 85 ❑ Only transportation available
82 ❑ Inexpensive way to travel ❑ Other _____ 86 ☐

24. Fifteen measures of service quality are listed below. Please circle a number after each measure to indicate how you feel about the service on *this* rail line. (Leave blank any measures that don't apply.) **Then, place a check mark beside the three measures most important to you.**

		Very Poor		Average		Very Good	✔
87	Station condition/cleanliness	1	2	3	4	5	102_____
88	Parking availability	1	2	3	4	5	103_____
89	Personal safety at station	1	2	3	4	5	104_____
90	Vehicle security at station	1	2	3	4	5	105_____
91	Availability of schedules	1	2	3	4	5	106_____
92	Information by telephone/Internet	1	2	3	4	5	107_____
93	A.M. on-time performance	1	2	3	4	5	108_____
94	P.M. on-time performance	1	2	3	4	5	109_____
95	Helpfulness of train personnel	1	2	3	4	5	110_____
96	Explanations of delays	1	2	3	4	5	111_____
97	Availability of tickets/passes	1	2	3	4	5	112_____
98	Comfort of ride	1	2	3	4	5	113_____
99	Availability of seating	1	2	3	4	5	114_____
100	Frequency of service	1	2	3	4	5	115_____
101	Travel time/speed	1	2	3	4	5	116_____

Comments/Suggestions: